UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF ARIZONA

IN RE: Bard IVC Filters Products Liability Litigation,	)	MD 15-02641-PHX-DGC
Lisa Hyde and Mark Hyde, a married couple,	)	Phoenix, Arizona **September 19, 2018**
Plaintiffs,	)	
v.	)	CV 16-00893-PHX-DGC
C.R. Bard, Inc., a New Jersey corporation, and Bard Peripheral Vascular, an Arizona corporation,	)	
Defendants.	)	

BEFORE: THE HONORABLE DAVID G. CAMPBELL, JUDGE

REPORTER'S TRANSCRIPT OF PROCEEDINGS

TRIAL DAY 2 - A.M. SESSION

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Proceedings Reported by Stenographic Court Reporter
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I N D E X

INDEX OF EXHIBITS

INDEX OF EXHIBITS (Continued)

P R O C E E D I N G S

(Jury not present.)

(Proceedings commenced at 8:30 a.m.)

THE COURT: Morning, everybody.

MR. ROGERS: Morning, Your Honor.

MR. LOPEZ: Morning.

THE COURT: All right. Plaintiffs' counsel, do you have matters you want to raise before we start this morning?

MR. O'CONNOR: I don't think we have anything, Your Honor.

THE COURT: How about defense counsel?

MR. ROGERS: Yes, Your Honor. We have a couple of matters that we want to bring up that relate to today's witnesses.

And -- Your Honor, can you hear me okay?

THE COURT: Yes.

MR. ROGERS: The first relates to Dr. Hurst, who is going to be our first witness, I understand, this morning. And, Your Honor, I did want to bring to the Court's attention that this morning at 7:30 a.m. we received seven additional exhibits for Dr. Hurst's testimony today from plaintiffs.

And I know, Your Honor, when we had our pretrial conference that we discussed trying to make best efforts to get exhibits the night before, and you said that we would have a hard stop at 1:00 a.m., and we all laughed.

And I want the Court to be aware of that. And one of the things that is particularly problematic about the exhibits we got this morning is that they are seven identified exhibits but they're all CT scans, each which will be composed of literally hundreds of images within each of those CT scans.

So apparently the plaintiffs this morning are going to display to the jury select images from these CT scans, and I don't have any advance notice of that. And I'm assuming I will see it for the first time when the jury sees it.

So Dr. Hurst did disclose these images in his report. He told us he reviewed them. But as far as which images we're going to see today in the courtroom, I have no idea what they're going to be.

THE COURT: So what are you requesting, Mr. Rogers?

MR. ROGERS: Your Honor, what I'm requesting -- I'm not planning on trying to object or exclude these. I understand the plaintiffs have done what they can do best, but I wanted to flag it for the Court's attention. And if we continue to see this, Your Honor, we will need to begin to object if that's going to be a pattern.

THE COURT: So you're not asking me to do anything on that issue?

MR. ROGERS: That is correct, Your Honor.

THE COURT: Okay. Do you have other matters that you want to raise?

MR. ROGERS: Do you have something, Jim?

MR. CONDO: I do. Your Honor, small matter.

I believe it was either Juror 3 or Juror 15, the first two gentlemen in the back row. I was standing out this morning at the edge trying to grab what cool air there was. As he came past me, he saw our boxes, six boxes on a handcart. He smiled and said, "I hope we don't have to read all of that." I smiled and didn't respond. He kept walking.

I think it might be appropriate for Your Honor, if Your Honor is inclined to do so, to just remind the jurors that the lawyers and the parties are not being rude by not engaging them in conversation. But it's not appropriate for us to have those kinds of conversations, particularly on a subject like are they going to have to read all of these, whatever's in the boxes.

THE COURT: Any objection to that?

MR. LOPEZ: No, Your Honor.

THE COURT: All right. I will remind -- well, I will tell the jury of that.

MR. CONDO: Thank you.

THE COURT: Anything else we need to address?

MR. ROGERS: Nothing else at this time, Your Honor.

THE COURT: We will come back in, then, when the jury's seated at 9:00 o'clock. Thanks.

(Recess taken, 8:34 a.m. to 8:59 a.m.)

(Jury present.)

THE COURT: Good morning, ladies and gentlemen.

JURY MEMBERS: Morning.

THE COURT: Thank you for being with us this morning. I want to mention one thing to you that I had thought about mentioning yesterday and then I forgot.

Over the next several days as you're here in the courthouse during trial, you may find yourself from time to time in a hallway or an elevator with one of these folks. If that happens, they're going to ignore you. Please don't think they're being rude because they're not talking to you or they look away and don't make eye contact.

They're doing that for the obvious reason that you're a juror in the case, and they shouldn't be interacting with you outside of the courtroom. So please understand they're all really nice folks. They're just trying to keep that line in place if they encounter you outside the courtroom.

All right. We are going to begin this morning with plaintiffs' evidence.

MR. O'CONNOR: Yes, Your Honor. At this time, we would call Dr. Darren Hurst.

THE COURTROOM DEPUTY: Dr. Hurst, if you'll please come forward.

If you'll please stand right here, sir, and raise your right hand.

DARREN R. HURST, M.D.,

called as a witness herein by the plaintiffs, having been first duly sworn or affirmed, was examined and testified as follows:

THE COURTROOM DEPUTY: Could you please state and spell your name for the record.

THE WITNESS: Darren Robert Hurst. D-A-R-R-E-N, R-O-B-E-R-T, H-U-R-S-T.

THE COURTROOM DEPUTY: Thank you, sir. Please come and have a seat.

DIRECT EXAMINATION

BY MR. O'CONNOR:

Q. Are you organized?

A. I am.

Q. All right. Good morning. Would you introduce yourself to the jury, please.

A. Hi. My name is Darren Hurst. I'm a physician in Cincinnati, Ohio/northern Kentucky area. I'm an interventional radiologist.

Q. Why don't you, if you would, Dr. Hurst, explain to the jury -- we'll go into more of your qualifications, but if you could explain to the jury what is an interventional radiologist, please.

A. So I'm a vascular interventional radiologist. I'm a physician, and I take care of patients who have a myriad of issues but mostly vascular problems. We use minimally invasive

procedures that are image guided to perform procedures to help treat vascular disease.

Q. And would you explain to everyone here today what you were asked to do in this case, what your role is here.

A. So I was asked to review the medical records and images for Lisa Hyde and evaluate Ms. Hyde's Bard filter and determine if the filter failed and its modes of failure.

I was also asked to determine whether there was an alternative device that could have been used at the time and to determine whether physicians had adequate information from Bard at that time to make a reliable decision on whether or not to use their device.

Q. And could you tell us what you found?

A. So what I found was that the Bard filter in -- the G2 filter in Mrs. Hyde --

Q. G2X?

A. G2X, sorry -- failed. And what it did was it penetrated her inferior vena cava, and then an arm from the filter fractured off the device and migrated through her vascular system, through the right atrium of her heart to the right ventricle of her heart.

This necessitated both removal of the filter and the fragment of the device using a complex endovascular procedure.

Q. And we're going to talk more about your opinions in a bit.

And before we talk about your qualifications, could

you just explain to the members of the jury what your work entailed exactly? What did you review and what did you look at?

A. So for Mrs. Hyde, I reviewed her medical records and her images. I reviewed the Bard internal corporate documents that are related to this case. I reviewed the medical literature having to do with IVC filters, both permanent and retrievable devices. And I reviewed the depositions in this case and the medical expert reports.

Q. And you also brought with you -- you reviewed imaging studies?

A. Yes, imaging, yeah.

Q. And you have some here to talk to the jury about today?

A. I do.

Q. And it looks as though you have a collection of something. It looks like fishing lures. What are those?

A. These are IVC filters. And these devices -- actually, this is the Recovery device and the Simon Nitinol device. These are two Bard filters. This is a Cook Gunther Tulip filter, a Boston Scientific Greenfield filter here, and then a VenaTech filter right here.

Q. All right. And we'll talk more in detail about the Bard filters that you brought with, and we have an ELMO there.

Would you explain to the jury your education and your training, please.

A. So I went to the University of Cincinnati for medical school from '91 to '95. From '95 to '99, I went to the University of Michigan for radiology residency, and then went on to do a fellowship in vascular and interventional radiology from 2000 to 2001.
Q. And currently --
A. I'm sorry, '99 to 2000. Sorry.
Q. So you graduated from medical school when?
A. I'm sorry?
Q. When did you graduate from medical school?
A. 1995.
Q. And then did you go on and become board certified?
A. You become board certified following your radiology residency. Yes, I became board certified.
Q. And would you explain to the jury briefly what that means.
A. So board certification means that I've completed the requisite training and testing for radiology and also for interventional radiology that's required by the American Board of Radiology, and then you become certified by the American Board of Radiology.
Q. Where do you work currently?
A. I work at St. Elizabeth Health System. We have three large hospitals that are in the Cincinnati area, in northern Kentucky, actually, across the river. We're a tertiary care medical center providing care for hundreds of thousands of

patients a year.
Q. And are you a director? Do you hold those type of positions?
A. Yeah. I'm -- I have been the director of vascular and interventional radiology since 2003. I'm also the chairman of the product committee where we review products like this for the cath labs. We review over a hundred products a year and go through a very specific process that's very similar to the review that we did in this case.
Q. You talked to us before about what interventional radiologists do, and I think you talked about minimally invasive procedures. Is that -- what do you do in regard to -- or tell us your experience with IVC filters, if you would.
A. So IVC filters have been around for quite a long time, well before I even started residency, so I began placing multiple different types of IVC filters in residency and fellowship. And then in my own practice, I've placed multiple different types of filters. I've probably placed over a thousand filters in my career.
And also, we retrieve the retrievable filters, the temporary filters, and we do complex retrievals at our institution as well.
Q. And if you could, explain to the members of the jury what purpose or what are filters for, IVC filters.
A. So an inferior vena cava filter is a device that is used in

patients who have deep vein thrombosis. So deep vein thrombosis is when you get clot in your leg. And sometimes that clot stays in your leg and it causes issues down there, but other times it can migrate through the vascular system, through the main vein of the body called the inferior vena cava, which is right in the center of your body, through that vein to the heart and then to the lungs.

When it gets to the lungs, that clot can cause significant issues, even cause death from cardiac problems.

Most of the time, patients who have clot in their legs and who are at risk for clot traveling to their lungs, which is called pulmonary embolism, most of the time those patients are treated with medication. It's called anticoagulation. There's several different kinds of ways to treat the patients, but the goal is basically to thin the blood so that that clot doesn't propagate and then travel to the lungs.

Some patients, however, can't receive the blood-thinning medication, for multiple different issues. They could be that they are at high risk for bleeding already, or if they do have bleeding, they could have significant complications. And some patients are just unreliable. They can't take the medication.

For those patients, the alternative therapy is to place a device within -- this is my model of the inferior vena cava, which would be right in the center of your body here, a

device within the inferior vena cava that blocks the clots from getting to the lungs. So the device sits in the inferior vena cava, and as the clot travels up through the inferior vena cava, it gets caught in the device before it gets to the lungs to cause problems.

Q. Dr. Hurst, I think there's an ELMO there. Maybe if you could switch that on, and it might show --

A. Yeah.

MR. O'CONNOR: Your Honor, can he display that on the ELMO, please?

THE COURT: Yes.

THE COURTROOM DEPUTY: I'm not getting a signal.

THE WITNESS: Do I need to --

THE COURTROOM DEPUTY: Hold on. You have to hold it down.

I've displayed it to the right area. The actual camera is not working. I know we had to -- the little button is red.

MS. WORTMAN: That means it's off.

THE WITNESS: That means it's off?

MS. WORTMAN: Yeah, we're trying to be efficient and leave it on.

THE COURTROOM DEPUTY: Let's give it a second to see if it will pop up.

THE WITNESS: There we go. Says it's hooked up to

HDMI.

THE COURTROOM DEPUTY: Hang on.

BY MR. O'CONNOR:

Q. Well, we can come back to that.

A. Yeah.

Q. If you could --

A. So the device -- the device traps the clot as it comes up the inferior vena cava. That's basically it. It's like a -- it's a filter.

Q. So for clarification, Dr. Hurst, you just showed us that tube, and as -- that is a simulation of the vena cava; correct?

A. Yes.

Q. And you showed us on your body where the vena cava is, but could you explain to the members of the jury what the vena cava is, the inferior vena cava, and why does a filter go there?

A. So the inferior vena cava is the -- basically the largest vein of your body that the two large veins of your legs flow into and connect to. And then it -- it's in the very center of your abdomen, going from about the level of your belly button all the way up to the heart. It's about, you know, 2.4 centimeters in diameter, so it's nearly the same diameter as this tube.

Q. All right. And how many IVC filters have you implanted in your career?

A. I would say probably near a thousand. I mean, a lot.

Q. In your practice, do the physicians in your practice that you work with, do you retrieve filters?
A. Yes.
Q. And approximately how many?
A. We probably retrieve about 20 a year. So I would say in our practice, it's, you know, near 60 or 70 filters that we've retrieved in the last three or four years.
Q. Have you implanted Bard IVC filters?
A. Yes. We've used the Simon Nitinol filter, the G2 filter, the G2X filter, and I believe the Eclipse filter.
Q. And are you still using Bard filters?
A. We use the Denali filter now, yes.
Q. Any others?
A. The rest of those filters are not available now. They're off the market.
Q. Do you know why they're off the market?
A. I believe because of safety issues.
Q. Thank you.

Now, you're here as an expert; correct?

A. Yes.
Q. And you spent time reviewing information in this case, including Mrs. Hyde's records, imaging studies, and also Bard internal documents. Did you also conduct and look at the medical literature?
A. I did. I did an extensive review of the medical literature

for this case and other cases, including a review of the power of the studies, the number of patients, the applicability of the studies to each case.

Q. Now, in your work as an expert, are you compensated for your time?

A. Yes.

Q. And how are you compensated?

A. I bill on an hourly rate, $500 an hour.

Q. And how many hours have you spent in this case?

A. I'd say roughly 25.

Q. How often do you agree to be an expert in matters that come to court?

A. It takes up about 10 percent of my work time as an interventional radiologist.

Q. And just so we're clear, are you being paid to come here today?

A. Yes.

Q. Why do you do expert work?

A. I do it for multiple reasons. I find it very interesting. I think it's helpful for both me and my patients because I learn new things all the time. It's -- it helps you delve deeply into issues, medical issues and interventional radiology issues.

I also do it because I believe that community physicians should be involved in these types of cases to give a

perspective of a nonacademic physician. So, you know, I do it for multiple reasons.

Q. All right. Now, as it relates to what you've done in this case, you've told us that you've reviewed medical records and imaging studies and you also looked at Bard's internal documents; is that correct?

A. Yes.

Q. And you said you reviewed other experts' reports. Did you review information from Bard that's typically not shared with physicians in the field?

A. Yes.

Q. And also, did you look at instructions for use for the filters?

A. I did.

Q. Thank you.

And tell us what you did by way of looking at the medical literature, why you did it.

A. Why I did it?

Q. Yes, sir.

A. Well, the medical --

MR. ROGERS: Objection, Your Honor. Nondisclosure.

THE COURT: Well, this is literature he reviewed; is that right?

MR. ROGERS: Yes, Your Honor. There's no discussion of medical literature in his report.

THE COURT: Is that right?

MR. O'CONNOR: Well, he says he reviewed medical literature, and he listed the ones that he reviewed. That's all I'm asking about.

THE COURT: Okay. So he said that. You're asking him now to give further opinion based on it?

MR. O'CONNOR: I'm not asking him to give opinion. I'm asking him why he did it for his work in this case.

THE COURT: All right. I think that's foundational. Objection's overruled.

BY MR. O'CONNOR:

Q. Can you explain why?

A. Sure.

Are we okay? Yeah.

So I reviewed the medical literature because that basically gives you an idea of what's going on out in the community and with patients and with the device. The medical literature is peer reviewed, so people submit studies to the journals, and the studies are evaluated for their veracity or the truth. So it's a good way to glean information about a particular device or procedure that you're doing.

Q. All right. Talk to us a moment about informed consent. What is the process?

A. So informed consent is when a physician discusses the risks, alternatives, and benefits of a particular line of

treatment, therapy, or procedure. When we do this, what we do is we weigh the patient's clinical situation, the procedure or treatment that they may need, and then the potential risks and complications of that procedure or device.

And then in weighing that, we determine whether the patient will receive a benefit or whether the patient shouldn't have any procedure at all or should have some sort of alternative procedure.

Q. And what do you expect as a physician from a medical device company like Bard to assist you in the informed consent process?

A. So when you're doing the informed consent process, you need to have a clear understanding of how a -- for devices, especially, how the device is going to behave and what the risks of using that device are.

If you do not have, you know, clear, accurate, and timely information about the device, then your ability to perform informed consent is kind of inhibited because you just don't have enough information to do the risk-benefit analysis.

Q. All right. Now, tell us, if you would, Dr. Hurst -- and I think you have imaging. And at this point, I'd like you to explain to the members of the jury what happened to Lisa Hyde's filter.

A. So Lisa Hyde's filter, after it was placed, the arms and some of the legs of the filter, that's this part of the filter,

penetrated through the inferior vena cava, which is obviously the vessel that it was in.

And in penetrating through the inferior vena cava, one of the arms became -- started to interact with the vertebral body, which is the bone that's right behind the inferior vena cava. And then the arm fractured off of the filter and migrated through the inferior vena cava, through the heart, and into the right ventricle of the heart.

Q. And from what you've -- the work you've done in this case, can you explain to the jury what stability means in terms of a filter?

A. So a brief history of filters, for a very long time IVC filters were permanent devices, which means that when you were making a decision to place the device in a patient, you were making a decision to place that device in the patient for the rest of their life.

And the permanent device, the permanent devices -- I'm sorry, I lost my train of thought. Would you give me your question again?

Q. Sure. What I'm asking you is why is stability --

A. Stability, right.

Q. -- is that an important feature of a filter?

A. So because the device was going to be in the patient for a long period of time, you require stability. You know, it could be in the patient for up to 15, 20, 30 years depending on the

age of the patient when you place the device and their other medical issues.

When these devices were released, the new devices, they were purported to be what we call retrievable and permanent devices. So they had a new indication. You were able to actually place the device, but then you could remove it after the contraindication to anticoagulation had passed.

In other words, the patient could receive oral medication to protect them from PE, or maybe their risk for pulmonary embolism had passed. So you could remove the device and get it out of the patient.

But they also were supposed to be devices that could be left in permanently. And, again, if a device is left permanently in the patient, it has to be stable. It can't move. It can't migrate. It can't fracture.

Q. All right. And in your opinion, did Lisa Hyde's filter meet the expectation of being stable?

A. No, it did not.

Q. Do you want to talk about imaging right now to show the jury what happened to this filter? And then we'll talk about some of your other opinions.

MR. O'CONNOR: If we could, could we go to Exhibit 4921?

THE COURT: What was that number?

MR. O'CONNOR: 4921, Your Honor.

THE COURT: All right.

THE WITNESS: Can I pull up my report here?

MR. O'CONNOR: And, Your Honor, I believe that we have an agreement, a stipulation that this may come into evidence.

THE COURT: Are you moving it into evidence?

MR. O'CONNOR: Yes, Your Honor.

THE COURT: Any objection?

MR. ROGERS: No, Your Honor.

THE COURT: Admitted.

(Exhibit No. 4921 admitted into evidence.)

MR. O'CONNOR: All right. May we display to the jury, Your Honor?

THE COURT: Yes.

BY MR. O'CONNOR:

Q. So, Dr. Hurst --

THE COURT: Excuse me just a minute.

Does everybody have it on your screens?

Okay. Thank you. Go ahead.

BY MR. O'CONNOR:

Q. Would you explain to us what we're looking at?

A. Sure. So this is an axial section, which means it's a cross-section --

THE COURT: Sorry, Doctor. Keep talking into the mic, if you would.

THE WITNESS: So this is an axial section or a

cross-sectional image of the abdomen of Mrs. Hyde on June 14, 2013. In the center of the picture, you will see the inferior vena cava; and within the inferior vena cava, you see those brighter dots. That is actually a cross-section of the arms and legs of the filter itself.

And you can see that this arm right here where I'm drawing the arrow, very poorly, is up against or adjacent to and interacting with the L3 vertebral body, the bone.

BY MR. O'CONNOR:

Q. And let me just stop you there so we can make sure we're clear what you've just done.

What you've done for us here in the courtroom is you have actually circled the filter from the perspective of this imaging; is that correct?

A. Yes.

Q. And you have an arrow pointing to what, Doctor?

A. That's the 6:00 o'clock arm of the filter.

Q. And when you talk about this being a sagittal view, what does that mean? Can you orient us?

A. This is actually axial. This is the axial view.

Q. Axial view. Would you orient us to that, please?

A. So it is a cross-sectional, like kind of a bread slice between -- of your body. A picture. Just one slice through.

Q. All right. And if you would, then, you were telling us about the surrounding anatomy to orient us. Please continue.

A. Yeah. So the white structure behind the inferior vena cava here, this structure right here is the L3 vertebral body.

And then this structure over here is the large artery of the body called the aorta.

Q. All right. And what is the date of this imaging?

A. 6/14/13.

Q. And should we go to the next imaging to show a different view?

A. Yes.

Q. Let's look at Exhibit 4873.

Oh, excuse me. That is 4873.

A. Yeah, we have it. How do I erase the markings?

THE COURTROOM DEPUTY: I'll do it.

THE WITNESS: Thank you.

MR. O'CONNOR: Oh, I see. You've got to erase that.

THE WITNESS: Thanks.

BY MR. O'CONNOR:

Q. What are we looking at here, Dr. Hurst?

A. So this is a --

THE COURT: You want this displayed?

MR. O'CONNOR: Oh, you know what, excuse me, Your Honor. I apologize. Again, all the imagings that I'm going to be showing here have been stipulated.

THE COURT: You need to move every one into evidence.

MR. O'CONNOR: All right. And at this time I would

move Exhibit 4873 into evidence.

THE COURT: Any objection?

MR. ROGERS: No, Your Honor.

(Exhibit No. 4873 admitted into evidence.)

MR. O'CONNOR: And I request that we display this one to the jury, Your Honor.

THE COURT: You may.

MR. O'CONNOR: Thank you.

BY MR. O'CONNOR:

Q. Go ahead, Dr. Hurst.

A. So this is a three-dimensional reconstruction of the CT scan that you saw before. It means we took the images and stacked them on top of each other, and now we're looking at it -- actually, the equivalent of looking at it from the side. It's called a sagittal reconstruction.

So we're looking at the filter from the side here, and you can see this is the device right there in the center of the image. And at the back of the image there, you will see the posterior portion of the filter. There is the leg right up against that vertebral body and interacting with it, and actually, almost bent forward in the patient's body by that bone right there.

Q. And what do you call that bone?

A. That's the L3 vertebral body.

Q. All right. And L3 means lumbar?

A. Yes.
Q. And so as you look at the spine, could you just orient us where the lumbar is in relation to the rest of the spine?
A. So the lumbar spine is the lower portion of your spine that goes basically from the middle of your back down to the top of your belt line.
Q. And you number each vertebrae as they go down?
A. Yes.
Q. All right. Thank you.
And is this exhibit showing -- this imaging study showing interaction between the filter struts and any part of the anatomy?
A. Yes. The -- specifically, the arm and the L3 vertebral body.
Q. All right. Thank you.
MR. O'CONNOR: And then, Your Honor, the next one I'd like to move into evidence is Exhibit 4922.
THE COURT: Any objection?
MR. ROGERS: No, Your Honor.
THE COURT: Admitted.
(Exhibit No. 4922 admitted into evidence.)
MR. O'CONNOR: May we display?
THE COURT: You may.
BY MR. O'CONNOR:
Q. And, Dr. Hurst, if you could just orient us and tell us

what we are looking at here and what is the significance of this imaging study.

A. So, again, we're -- we have an axial slice of a CT scan of the abdomen. This, again, shows the filter within the inferior vena cava. I'm going to circle the inferior vena cava here.

And you will see that the arm that was interacting with the vertebral body that used to be right here is now gone. So the filter is now missing an arm. There should be six arms and six legs. If you count -- the arms are on the outer portion of the filter on this image. If you count the legs, there's five -- I'm sorry, if you count the arms, there's five arms, and obviously one is missing, the one that was interacting with the L3 vertebral body.

Q. All right. And as you explained, what happened to that strut? That was an arm of the filter?

A. Yes. That arm embolized or migrated through the inferior vena cava, through the right atrium of the heart, to the right ventricle of the heart.

Q. And I don't think the ELMO's working yet, but could you explain from the G2X filter the difference between the arms and the legs on that filter?

A. So the arms of the filter form sort of an upper tier of the device, sort of an umbrella above an umbrella. The legs then have a lower tier -- the legs are then the lower tier of the umbrella.

The legs have small hooks that -- the legs have small hooks on them. We can pass it around. Have small hooks on them that engage the inferior vena cava, whereas the arms do not have any hooks. They are only connected to the cone or the top of the filter.

MR. O'CONNOR: Your Honor, may we show the jury the filter?

THE COURT: Yes.

MR. O'CONNOR: And have them pass it around?

THE COURT: Yes, you may.

BY MR. O'CONNOR:

Q. As we let the jury inspect, are there any specific instructions you have for them?

A. Just that the -- there's a difference between the arms and the legs. The leg has a little hook on it on the bottom of the leg, whereas the arm has no secondary attachment point. Its only attachment point is to the cone or the filter, which is important in the design of this product and it's an important reason why it has the failures that it does.

THE COURTROOM DEPUTY: Okay. It's working.

THE WITNESS: Just in time.

Do you have the Eclipse one? I could show that one while they're looking at the other one.

BY MR. O'CONNOR:

Q. All right. Go ahead and show them the --

A. I don't have the Eclipse. Do you have it?
Q. All right. That's okay. We'll let the members review this, and then we'll go back.
A. So as you're looking at that filter, there's a couple other interesting characteristics of that device in comparison to the permanent device from which it came.

The wires on that device are actually a little bit smaller and a little more fragile. The hooks on the device are a little smaller and are designed to release from the inferior vena cava when the device is retrieved instead of tearing the inferior vena cava wall.

The hooks are also ground down to be more tapered than the hooks on this device as well. And that's also to encourage release from the inferior vena cava.

In my opinion, that -- all those things contribute to the instability of the device.

In addition, this device is unique in that -- in that the arms, like I said, have one attachment point to the cone right here. There is no other attachment point, and they don't attach to the wall of the inferior vena cava. That means if they fracture and release from the cone of the filter, they're not attached to anything so that they can embolize or migrate through the inferior vena cava.

This is the Simon Nitinol filter, which was the device from which these devices, these retrievable devices were

designed. You can see the cone of this filter is totally different. Instead of having arms, it has what we call a flower. And this wire that makes up the flower is actually continuous. It has two attachment points, you know, so if this device fractures right here, it still has an attachment point here and attachment point here so that this portion of the device cannot embolize or migrate through the -- or get free from the device, basically. It's basically stuck to the device.

Q. All right. Dr. Hurst, I just want to go back and get a few more imaging studies in quickly, and then I would like to talk about the imaging that shows the ventricle -- the strut that went to the ventricle. Okay?

A. Yes.

MR. O'CONNOR: So quickly, if we could display 4922, Your Honor, and I would offer this imaging study into evidence at this time.

THE COURT: You just covered 4922.

MR. O'CONNOR: Okay. 4923, excuse me.

THE COURT: Any objection?

MR. ROGERS: No, Your Honor.

THE COURT: Admitted.

(Exhibit No. 4923 admitted into evidence.)

BY MR. O'CONNOR:

Q. And, Dr. Hurst, could you explain to the members of the

jury what we are looking at in this imaging study?
A. Yes. So this is a CT scan --
THE COURT: Mr. O'Connor, do you want this displayed?
MR. O'CONNOR: Yes. Thank you, Your Honor. May we display?
THE COURT: Be sure to ask that each time.
MR. O'CONNOR: I will. Thank you. I see it, but I have to remember to have it displayed to everybody.
May we display this now, Your Honor?
THE COURT: Yes.
BY MR. O'CONNOR:
Q. Go ahead, Dr. Hurst.
A. Okay. Again, we have an axial view of a CT of the abdomen on Ms. Hyde. This is from May 16, 2014.
What this demonstrates is that the legs also can penetrate the inferior vena cava and interact with adjacent organs or structures. This particular leg, the 3:00 o'clock leg, is actually interacting with the wall of the main artery of the body, the aorta, which is a high-pressure vessel that carries a lot of blood.
There are also interactions with the L4 vertebral body with this 6:00 o'clock leg. And then there -- the other legs are also penetrated -- have penetrated the inferior vena cava and are in the fat adjacent to the inferior vena cava.
Q. All right. Thank you.

And we're going to come back to some of those findings in a moment.

MR. O'CONNOR: If we could look at 4925, and I would offer this into -- excuse me, not 4925. 4924. And I would offer this imaging study into evidence, Your Honor.

MR. ROGERS: No objection.

THE COURT: Admitted.

(Exhibit No. 4924 admitted into evidence.)

MR. O'CONNOR: May we display to the jury?

THE COURT: Yes.

BY MR. O'CONNOR:

Q. What are we looking at here on 4924, Dr. Hurst?

A. Sure. This is the coronal view of the CT scan that was performed of her abdomen but included a portion of her chest from 5/16/14. So coronal, a coronal view is basically slicing through the body this way, so you're looking at the body from basically as if you were looking at it front on.

So this structure right here is the heart. Specifically, this would be called the right ventricle of the heart, which is the portion of the heart that pumps blood from the venous system into the lungs through the pulmonary arteries so that it can get oxygenated.

Q. Dr. Hurst, now, is this the piece that you indicated on the earlier CT scan was missing?

A. So, yes, this is the 6:00 o'clock arm right here.

Q. Let me ask you this while we're talking about this. What is the risk when a filter moves after implant?
A. What is the risk if a filter moves after implant?
Q. Yeah. What risk does that create to a patient?
A. It depends on how far it moves. So the IVC filters, when they're deployed, you would hope that they would stay in the position that you deployed them in. You want them to be stable.

If the device does not stay in the same position, several things can happen. Number one, the device can migrate -- the whole device can migrate or release from the cava and migrate up all the way to the heart, and that can be a catastrophic event. The patient oftentimes -- well, requires open heart surgery and removal of the device, and they can die from a migration, a total migration of the device to the heart.

The device can also migrate towards the feet, and when it migrates towards the feet, what happens is the device starts -- this device, the G2, when it migrates towards the feet, the device starts to sort of flower out or the legs start to splay out.

That is not a significant feature in this particular case, but when those legs start to splay out, that can increase the risk of penetration of the inferior vena cava and then also can increase the risk of fracture, because as those legs splay out, they're reaching further out into the body and can

interact with organs such as vertebral bodies and the aorta and even the bowel and muscles.

So when a filter moves in the body, several different things can happen. In addition, there's one other type of movement that can occur. The filter can tilt. So ideally the filter stays centered within the inferior vena cava. It's designed to sit like that. If the device becomes significantly tilted like that, that can put additional stress on the legs and also opens the filter up to allow blood clot to pass through it, so it effectively is not doing what it's supposed to do. It's not going to block clot from going to the lungs.

Q. What were the failure modes that you determined were specific to Lisa Hyde's G2X filter?

A. So Lisa Hyde's G2X filter had a minimal amount of tilt anteriorly, and then also, she had predominantly penetration of her arms and legs of the filter and then interaction with adjacent structures. And then finally, the most significant failure was that the arm fractured off the filter and then migrated to her heart, requiring a complex procedure to remove.

Q. And you talked about the ventricle, the structure that went to the ventricle of the heart.

A. Yes. That's what we have --

Q. Explain to us --

A. -- in the picture.

Q. Pardon me?

A. That's our picture right here, yes.
Q. And what risk, what problems are associated when a strut goes to the ventricle of the heart?
A. So when an arm or a leg from a filter migrates to the heart, several things can happen. The worst possible thing that can happen is that the arm or leg can penetrate the wall or perforate the wall of the right ventricle of the heart and cause bleeding from the heart into the sac that surrounds the heart. And then that can actually compress the heart so the heart won't beat anymore, and it can cause sudden death. That's called cardiac tamponade.

The device can also migrate through the heart wall into the pericardial sac and then out -- basically out of the heart and into the chest wall. All of those things can cause chronic pain, arm pain, chest pain, neck pain, similar to what people would have with, you know, a heart attack or whatnot.

In addition, the arm can penetrate the muscles of the heart and interfere with conduction. So the heart muscle carries the conductive nerves for the heart, and if the arm penetrates through the muscle in the right location, it can cause arrhythmias, which are abnormal heart rates -- I'm sorry, abnormal heart rhythms, which could also be life threatening.
Q. You talked about Lisa Hyde's IVC filter and that it had penetrated through the vena cava at other locations. Do you recall that testimony?

A. Yes.
Q. For example, you told us that it was interacting with the vertebrae, and I thought you said it was also interacting with the aorta.
A. Yes.
Q. And what is the aorta?
A. The aorta is the largest blood vessel, arterial blood vessel of the body. It carries basically all the blood from the heart to the vital organs of the abdomen and the legs.
Q. And what problems are associated or what risks exist when a filter will penetrate and interact with those types of organs?
A. So the inferior vena cava is located right in the center of the abdomen, so it's kind of like ground zero. There's a lot of different things surrounding it.

So when the filter legs or arms interact with the bowel, that can cause abdominal pain or kind of GI distress. It can also cause -- it can also interact with the muscles of the back that are very close to the lumbar spine and cause pain that radiates down the leg or pain that is sharp when the patient moves in specific ways.

I've seen these fragments interact or legs interact with the urinary tract, with the ureters. Those are the -- basically the structures that carry urine from the kidneys to the bladder. When they interact with the vertebral bodies, they can cause back pain. And when they interact with the

aorta, very rarely they can cause the aorta to develop what's called a pseudoaneurysm, which is basically when the strut punctures the aorta and a small hole happens in the aorta that can chronically seal off, but occasionally that can rupture and patients can --

Q. Based --

A. -- bleed to death.

Q. Go ahead. I'm sorry.

A. That's okay.

Q. Based upon your conclusions about the failure modes that were experienced by Lisa Hyde's G2X filter, do you have an opinion whether the G2X filter in Lisa Hyde met the reasonable expectations of physicians like you?

A. No. It did not.

Q. Okay. Can you explain why?

A. Because the filter was unstable. It became unstable and fractured, and the fragment from the fracture went to her heart, requiring an additional procedure to remove.

The filter penetrated the inferior vena cava and began acting -- interacting with adjacent organs, and I believe that those sort of interactions are progressive, so this device had to come out.

Q. Now, you talked about the fact that this filter penetrated and that led to the fracture of the arm that went and migrated to the ventricle; is that correct?

A. Yes.
Q. And I think you said that there was tilt, slight, and that the filter moved down?
A. There is very slight tilt and probably about 5 millimeters of caudal migration, which is migration towards the feet, but that is not the predominant issue.
Q. But regardless, is tilt and caudal migration, are those also attributes of instability?
A. Those are characteristics of the -- this family of filters, the Bard filters, the caudal migration and tilt, yes.
Q. And are those modes of failure, the migration, the penetration, and the fracture and the migration and the tilting, are those modes that are inconsistent with the expectation of stability in a filter?
A. So, yes. When we look at the family, the G2X, the G2, and the Eclipse, those devices were unique in that they had basically all of the types of failure that a filter can have, together.

You know, individual devices like the ones that I have brought today, like the Greenfield filter, which is this device here, it's a fairly old device. It suffered from some complications or issues, predominantly tilt, but did not have the fracture issues and the same penetration issues.

So when we look at the G2X, it had all of the issues that you could possibly have, and it had them at either the

same rate or greater rates than the prior permanent devices.

MR. ROGERS: Objection, Your Honor. I think we've entered an area that's addressed by your Daubert order.

THE COURT: Sustained.

BY MR. O'CONNOR:

Q. Okay. Let's move on to a different area, Doctor.

As an interventional radiologist and a physician that works with filters, what -- would you expect a manufacturer like Bard to disclose what it knows about risks and dangers of its filters, the Bard family of filters?

A. Yes.

Q. And what type of information would you expect Bard to provide doctors for purposes of performing informed consent and ongoing care of their patients?

A. So when we deal with medical device companies, we expect them to do their due diligence up front when they're designing a device to make it reasonably safe and to determine whether the device is safe before they release it for use.

In addition, we expect the device companies to have a program of surveillance, where they are kind of basically watching their device as it's being used in patients and to alert us if they come upon unexpected issues or problems that could be dangerous to the patient.

Q. All right. Now, in the course of your work in this case, you reviewed Bard documents?

A. Yes.
Q. Did you come across information that you learned in this case that you would have reasonably expected Bard to provide physicians but wasn't?
A. Yes.
Q. And what type of information did you come across?
A. There were informations related to -- information related to health hazard evaluations, which are evaluations of a device when there are multiple complaints about a device. There was also information from their internal studies that had concerning data about increased risk of migration, fracture, tilt.

So in reviewing the internal documents, there was definitely information that would have been very helpful for me in making informed decisions for my patients when I'm placing devices.

MR. O'CONNOR: Let's show Exhibit 4820 to Dr. Hurst.

BY MR. O'CONNOR:
Q. Dr. Hurst, showing you Exhibit 4820, is this a document that you reviewed and considered in your -- formulating your opinions in this case?
A. Yes.

MR. O'CONNOR: And, Your Honor, I believe this is stipulated into evidence.

THE COURT: Are you moving it into evidence?

MR. O'CONNOR: I'm going to move it into evidence, yes.

MR. ROGERS: No objection, Your Honor.

THE COURT: Admitted.

(Exhibit No. 4820 admitted into evidence.)

BY MR. O'CONNOR:

Q. All right. Dr. Hurst, now, just to put this all in perspective, back at the time that doctors like you were using Bard filters, you had reasonable expectations of Bard and the type of information it would provide; correct?

A. Yes.

Q. And would that include information that Bard was aware of of how its filters were behaving, including what failure modes they were causing?

A. Yes.

MR. O'CONNOR: May I publish Exhibit 4820, Your Honor?

THE COURT: You may.

BY MR. O'CONNOR:

Q. And would you explain to the members of the jury what this document is, from your understanding?

A. So this is a Bard internal document --

MR. ROGERS: Objection, Your Honor. There's no foundation for this.

THE COURT: Well, the question is calling for his understanding based on having read the document. So I'm not

understanding your objection, Mr. Rogers.

MR. ROGERS: Your Honor, if he wants to explain his understanding, that's fine. But if he's going to describe to the jury what this document means, that's a different story, and I thought that's where he was going.

THE COURT: Well, I think the question was "What is your understanding?" So I'll overrule the objection.

MR. ROGERS: Thank you, Your Honor.

THE WITNESS: So my understanding is that this is an evaluation of the device that was performed because of multiple reports by physicians in regards to complications that were occurring with the G2 filter.

BY MR. O'CONNOR:

Q. And we talked about this and we heard information about the history, the family of Bard filters, but the G2, what's its relationship to the G2X or the Eclipse?

A. So the G2 filter was first, and it is actually -- this is a G2 right here, I think. The G2 filter was first, and it did not have a retrieval hook on top of it. The G2X, they added a hook to the top of the device so that it could be more easily retrieved.

Q. And let me ask you this: Was there any -- other than that hook on the top, was there any difference, from your perspective as a physician, between the G2 and the G2X?

A. No, there was no difference.

Q. And what about the Eclipse?
A. So in response to the fracture issues that were being seen with the G2 and G2X and the device before it, the Recovery, the -- Bard made some changes --
MR. ROGERS: Objection, Your Honor. No foundation. The witness is telling the jury what Bard --
THE COURT: Sustained.
MR. ROGERS: -- does.
BY MR. O'CONNOR:
Q. Just the difference between --
A. The difference --
Q. Is there any difference --
A. Yes.
Q. -- that you could tell from the G2 and the X and the Eclipse?
A. Yes. Basically, what they did was they did a procedure called electropolishing of the filter so that they could reduce fracture risk.
Q. And did that, in your experience, did that filter experience fractures as well, the Eclipse?
A. Yes.
Q. All right. Now, going to Exhibit 4820, can you specifically tell us what information is in this document that you would have expected Bard to provide you but was not provided to you as a physician treating patients?

A. Well, the mere fact that they were having early reports of migration and that these migrations were unusual, they were caudal migration, and that in 75 percent or 70 percent of the cases, the filter was found to be out of position or it was tilted or in an anatomically suboptimal position, which raised questions about the effectiveness of the device.

Q. And, again, is that any information that Bard shared with you and physicians practicing in interventional radiology who were implanting filters, including the G2s and G2X?

A. No.

MR. O'CONNOR: Can we show Dr. Hurst Exhibit 443, please. 4-4-3.

BY MR. O'CONNOR:

Q. Doctor --

MR. O'CONNOR: At this time, Your Honor, I would move 443 into evidence.

MR. ROGERS: No objection, Your Honor.

THE COURT: Admitted.

(Exhibit No. 443 admitted into evidence.)

MR. O'CONNOR: May we display to the jury?

THE COURT: Yes.

BY MR. O'CONNOR:

Q. Dr. Hurst, is Exhibit 443 another document, Bard internal document that you reviewed?

A. Yes.

Q. And explain to us what was significant -- what information was important to you in this document that you did not receive and would have expected to have received?
A. Can we move to the next page? Yeah. Thank you.
So in this particular document, the most concerning thing to me is that there seems to be an increasing rate of complaints related to fracture from the G2 and G2X devices, beginning in 2005 with, you know, a 0 percent complaint rate, going up to a 0.9 -- .09 percent rate. So it seems like there is a trend for increasing risk of fracture over the time that the device has been on the market.
Q. And if we go back to page 1, we can see that it's called a draft, but it's dated November 30, 2008; is that correct?
A. Yes.
Q. And when is your understanding that Lisa Hyde received her G2X -- and there's been some contention it may have been an Eclipse. When is your understanding she received that filter?
A. 2011, I believe.
Q. February 2011?
A. Yes. February 25th, 2011.
Q. And by the time February 2011 had arrived, had Bard provided any information that we looked at in Exhibit 443 or in the health hazard evaluation, 4820, to physicians?
A. No.
Q. And is that information by then you would have expected to

have received?
A. Yes.
Q. And what would you have done with that information in your practice?
A. Well, we would have evaluated each patient for alternative devices based on, you know, the benefit -- the risk-benefit analysis. So we likely would have either placed a permanent device or put the patient -- tried to put the patient on anticoagulation, or we would have placed a different retrievable device.
Q. The G2X that Lisa Hyde received, was that promoted as a permanent filter with an option to retrieve?
A. Yes.
Q. And as a permanent filter with an option to retrieve, what was the reasonable expectations of physicians as to how it would behave in terms of failure modes?
A. Well, you would expect it to behave as a permanent device.
Q. Meaning what?
A. Meaning that it would maintain stability within the inferior vena cava.
Q. In terms of risks and benefits, do you have an opinion in this case based upon the failure modes you described whether the risks and dangers associated with this filter outweighed any benefit to Lisa Hyde?
A. In this particular case, the risk did not outweigh the

benefits.
Q. Now, you told us that her filter did not behave as a reasonable physician would have expected; is that correct?
A. Yes.
Q. And, but as you look at Exhibit 443 and that exhibit we looked at earlier, the health hazard evaluation, 4820, that's information Bard had back in 2006 and 2008. Did Lisa Hyde's filter display those same type of failure modes that Bard was aware of as early as 2008 and 2006?
A. Absolutely. The filter fractured.
Q. And Bard never disclosed that to physicians?
A. No.
Q. Now, you talked about, in your case -- about the Meridian filter in this case. Do you recall --
A. Yes.
Q. -- your opinions on that?
What are your opinions regarding the Meridian filter?
MR. ROGERS: Objection, Your Honor. We have nondisclosure, and I think this also approaches an area in your Daubert order.
MR. O'CONNOR: May we approach?
THE COURT: Yes.
If you want to stand up for a minute, ladies and gentlemen, feel free.
(At sidebar on the record.)

MR. O'CONNOR: He talks about the Meridian several places.

THE COURT: What page are you on?

MR. O'CONNOR: Page 9.

THE COURT: Okay. Where?

MR. O'CONNOR: Paragraph 6.

THE COURT: It says: The next generation, the Meridian?

MR. O'CONNOR: Right.

THE COURT: Okay.

MR. O'CONNOR: Adding caudal anchors for the purpose of --

(Court reporter clarification.)

THE COURT: Well, tell me where you're going. What is it you are going to ask him to testify about on the Meridian?

You can't put this by the mic.

MR. O'CONNOR: I'm sorry. I apologize.

I'm going to have him testify what he said in his report, that the Meridian was being discussed in Bard, that caudal anchors were an important feature on the Meridian, and that physicians like him were not told about that.

THE COURT: Mr. Rogers?

MR. ROGERS: Your Honor, my concern is is that when he was reeling off his laundry list of opinions, one of the things he said he was going to talk about was a reasonable alternative

design. And this is not a design expert. We have not gotten any design opinion from him. And I don't think that's an area that he can go to.

THE COURT: Well, are you concerned about him saying the things that Mr. O'Connor just described?

MR. ROGERS: Your Honor, I think if he limits himself to this report, I think that's okay.

THE COURT: Okay. So identify exactly what it is you intend to ask.

MR. O'CONNOR: Okay. I'm going to ask him, number one, what he understands about when Bard became aware of the features on the Meridian and what those features were. And whether he was aware of that and whether that information should have been disclosed to physicians at the time Lisa Hyde received her filter.

MR. ROGERS: Your Honor, I don't think he has any basis to say -- or knowledge to say when Bard became aware of the Meridian filter. I mean, that's a foundational issue.

THE COURT: What's the basis for that?

MR. O'CONNOR: He's received internal documents, like we all have, that they were talking about the caudal migration issues beginning in 2006; and he's reviewed documents as early as 2010 that talk about the Meridian project and the product opportunity appraisal.

THE COURT: Mr. Rogers?

MR. ROGERS: Your Honor, again, my concern is is that this witness is going to try and tell this jury what Bard was doing and what they were thinking, and he can't do that.

THE COURT: Well, can he, in your view, testify that he has seen Bard internal documents suggesting that caudal anchors were being discussed in February of 2006?

MR. ROGERS: Yes, Your Honor, he can.

THE COURT: So I think it needs to be the same kind of phrasing, which is what has he seen and what is his understanding of it, so he's not testifying about what Bard knew.

MR. O'CONNOR: But he's going to address why the caudal anchors were important and how they would have been important in this case.

THE COURT: From the perspective of?

MR. O'CONNOR: The caudal anchors would have reduced the risk of the penetration that this filter experienced.

MR. ROGERS: That's a design opinion.

THE COURT: Where is that in his report?

MR. O'CONNOR: Right here. The last sentence of paragraph 6: Ms. Hyde ultimately suffered from the G2/G2X filter complications the Meridian attempted to correct, including caudal migration, fracture, perforation, and tilt of the filter.

THE COURT: Well, what he's saying there is that she

suffered from complications Meridian attempted to correct. He's not opining that Meridian would have corrected them.

MR. O'CONNOR: Right.

THE COURT: Right?

MR. O'CONNOR: And I'll --

THE COURT: So he's not saying this was a design that was a better one. He's not expressing that opinion; right?

MR. O'CONNOR: I'll make sure he -- well, I'm trying -- I'll try to control that. I'll just tell him to look at his report and let's just stay specific with what he said in the report.

THE COURT: Ask leading questions.

MR. O'CONNOR: I will.

THE COURT: Okay?

All right.

MR. ROGERS: All right.

THE COURT: Did you have another issue?

MR. ROGERS: Well, the only other thing I'll raise, Your Honor, is we do have a substantive portion of the statute that I think we need to be cognizant of, and that is an -- incorporating into the Wisconsin product liability statute is a very -- provision based on the Federal Rule 407 that essentially says that you cannot give testimony about a --

You've got it?

MS. HELM: It's Section 4 of the statute. It says

that you can't present evidence of a subsequent remedial measure to prove defect of the product at issue. It's only admissible to show alternative design. It's paragraph 4. I can grab the statute.

THE COURT: Yeah. I know it says that. Here's my problem with that. The reason you're showing alternative design is to prove defect. So to say you can't show a later design to prove defect doesn't make any sense, because that's how you show it is because there was an alternative design.

MS. HELM: Actually, Your Honor, I think if you go back to paragraph 1 of the statute, if you read them in connection, paragraph 1 says you have to show a reasonable alternative design, and failure to incorporate the design rendered the product --

THE COURT: Right.

MS. HELM: -- defective. But you can't -- you have to independently show that the product was defective, and you can't use the new design --

THE COURT: Well, it seems to me the way you show defectiveness is two steps. One, you show there was a reasonable alternative design; and two, you show that the failure to use that alternative design made the product not reasonably safe. Right?

MS. HELM: Right. So -- correct. So you have to show the product -- not -- if you flip it, because it's an "and"

standard. If you flip it, you have to show that the product without the alternative design was not reasonably safe. Because --

THE COURT: I agree.

MS. HELM: Okay.

THE COURT: But are you saying that if they want to put in evidence that there was a caudal anchor design later developed by Bard, that that is inadmissible in this case?

MS. HELM: No. It's admissible if they can meet the statute language to show alternative design. It's not admissible under the Wisconsin statute to show that the G2X or the Eclipse was defective.

THE COURT: But that's how you show it was defective, by showing there was not -- that there was an alternative reasonable design.

MS. HELM: Actually, Your Honor, I disagree. You have to show that it was not reasonably safe, the product itself.

THE COURT: That's one of the two elements. The other one is --

MS. HELM: Right. It takes both.

THE COURT: Yeah. So to prove one of the elements, you need to show the later design. Right?

To me -- I mean, we can talk more about this, but when I saw that, I thought this doesn't make any sense. Because alternative reasonable designs, even if they're later designs,

do come into evidence to show there was a reasonable alternative design.

MS. HELM: It exists at -- right, the statute has specific language.

THE COURT: Right. And this clearly was being considered at the time.

MS. HELM: Yes.

THE COURT: So it seems to me the use of caudal anchors in the Meridian being considered at the time is clearly admissible in this case as a reasonable alternative. Do you agree with that?

MS. HELM: Yes.

THE COURT: Okay. Well -- so I don't see where 407 becomes an issue.

MS. HELM: Well, I think it's -- what I don't agree is the next step, for them to say that proves that the G2X --

THE COURT: Well, they would say that plus the fact that it was not reasonably safe proves.

MS. HELM: Right. It's the plus.

THE COURT: Okay. Well, but in terms of admissibility, I think it comes in. If you think we get to a point where it doesn't, that's fine.

So I think we know where we're going, but control it. In my view, just so you know, Mr. O'Connor, what he can't do is start giving design opinions. He can't say this was a better

design. Bard knew something or didn't know something. He's got to testify from his perspective as a doctor.

MR. O'CONNOR: And I will keep him there, and if he does go that way, I will say that I don't want you to talk about design. I want you to talk about your perspective as a doctor.

Thank you, Your Honor.

(End of discussion at sidebar.)

THE COURT: Thank you for your patience, ladies and gentlemen.

BY MR. O'CONNOR:

Q. All right, Dr. Hurst. Before we go on, I think a moment ago either you or I or both of us got tongue-tied. I want to just make sure we left off with your opinion.

Is it your opinion that in this case of Lisa Hyde, that the risks associated with her G2X filter outweighed any benefit of that filter?

A. Yes.

Q. And is that an opinion you hold to a reasonable degree of medical probability?

A. Yes.

Q. Now, let's talk about the Meridian and specifically about caudal anchors. You've arrived at opinions about those; correct?

A. Yes.

Q. Now, let me be very specific. Based upon your review in this case, when in your review of internal documents did it appear to you that Bard had a project for caudal migration? When did that begin, to address caudal migration in its filters?
A. As early as 2006.
Q. And did Bard -- did you review documents that discussed the Meridian?
A. Yes.
Q. Let me show you a document that you have reviewed.
MR. O'CONNOR: If you could put up Exhibit 1861.
And let's see. Go to page -- first of all, Your Honor, I think that I would move Exhibit 1861 into evidence at this time.
MR. ROGERS: And you're moving the entire document into evidence?
MR. O'CONNOR: Sure.
MR. ROGERS: Well, Your Honor, this is a 1,600-page document that's on the exhibit list. If he wants to move a page in, that's fine.
MR. O'CONNOR: All right. Go to page 70. Before we display it, Your Honor, I'll show you the page that I am asking the doctor to look at.
It's the last page on the document.
Excuse me one moment, Your Honor, if I may help.

We're having a technical difficulty.
BY MR. O'CONNOR:
Q. And I don't want to talk about anything -- what was the feature that the Meridian filter that was promoted by Bard, what features did it have that were important to you as an interventional radiologist?
A. So the Meridian filter differed from the G2X in that they added little anchors or reversed hooks to the arms of the device to limit penetration of the arm and to limit caudal migration or migration of the filter to the feet, basically to improve its stability. So they put little tiny hooks, reverse hooks on the arms of the filter.
Q. And is that information that Bard was working on a change in the filter as early as 2006, is that information that you would have reasonably expected Bard to share with physicians?
A. I don't know if they would have shared that specific information, that they were doing that. I think that they would have shared that they -- it would have been nice if they had shared that they had concerns with the design of the G2X and the current -- concerns were so significant that they were going to change the design of the device to add anchors.
Q. And I just want to talk about what they added, caudal anchors. All right?
A. Yes.
Q. Now, based upon your work in this case, did you arrive at

an opinion that the anchors that you talked about that were put on the Meridian, was that an attempt by Bard to correct the failures that Lisa Hyde --

A. Yes.

Q. -- the type of failures that Lisa Hyde experienced in her filter?

A. Yes. That's my opinion.

MR. ROGERS: Objection, Your Honor.

THE COURT: He said based on what he reviewed. That was the way the question was phrased.

MR. ROGERS: Thank you, Your Honor.

THE COURT: So the objection is overruled.

BY MR. O'CONNOR:

Q. And just so we're clear on the record, it -- based upon your review and what you saw with the caudal anchors, that addition to the Meridian filter, was that, from your perspective, an attempt by Bard to correct the type of failure modes that Lisa Hyde's G2 filter had experienced?

A. Yes.

MR. O'CONNOR: And I would move to admit 1861, page 70.

THE COURT: Any objection?

MR. ROGERS: No, Your Honor.

THE COURT: That page is admitted.

(Exhibit No. 1861, page 70 admitted into evidence.)

MR. O'CONNOR: May we publish to the jury?

THE COURT: You may.

BY MR. O'CONNOR:

Q. And, Dr. Hurst, could you show the jury the caudal anchors you were talking about that were added to the Meridian filter.

A. Sure. So this is obviously a picture of the Meridian filter here. Tough to do a -- draw on this device here. That is a caudal -- that is a penetration limiter or caudal anchor. That is a penetration limiter.

And then the other ones are actually not well visualized on here, but they're actually on the end of the -- on the end of the leg.

So basically they put three of these penetration limiters or caudal anchors on three of the arms and then the other three arms received this device right here, this modification, which was also a caudal anchor or penetration limiter.

Q. And based upon what you told us before, we looked at the HHE from 2006 and then we looked at the G2/G2X fracture analysis in 2008. And you told us that Bard was aware of complications, including the very complications that Lisa Hyde's filter experienced; correct?

A. Yes.

MR. ROGERS: Objection, Your Honor.

THE COURT: Sustained. You had him testify about what

Bard knew.

MR. O'CONNOR: Pardon me?

THE COURT: You had him testify about what Bard knew.

MR. O'CONNOR: Oh, I apologize.

BY MR. O'CONNOR:

Q. Those documents addressed the behaviors that you found existed in failure modes of Lisa Hyde's filter; correct?

A. Yes.

Q. And as you have told us, from what you reviewed in the Meridian filter, the caudal anchors appear to you to be an attempt by Bard to correct those failure modes?

A. Yes.

MR. ROGERS: Objection, Your Honor.

THE COURT: Overruled.

MR. O'CONNOR: And if we could put up Exhibit 1861.

THE COURT: That's the one that's up.

MR. O'CONNOR: Oh, I see. I'm looking at a different section.

Can we go to page 38?

BY MR. O'CONNOR:

Q. Dr. Hurst, this is part of Exhibit 1861 -- or is this a page in the exhibit that you reviewed that you just discussed?

A. Yes.

MR. O'CONNOR: At this time I would move to admit Exhibit 1861, page 38 into evidence, Your Honor.

MR. ROGERS: No objection, Your Honor.
THE COURT: Admitted.
(Exhibit No. 1861, page 38 admitted into evidence.)
MR. O'CONNOR: May we display to the jury?
THE COURT: You may.
BY MR. O'CONNOR:
Q. Now, Dr. Hurst, is this among the documents that you have reviewed from Bard?
A. Yes.
Q. And would you tell us what is significant about this document to you?
A. The date on this document is basically June or July of 2010, when these -- well, when these executives signed off on this document to approve the concept of the Meridian anchors.
Q. And a moment ago in the same document, page 70, we saw a diagram of the Meridian with the caudal anchors?
A. Yes.
Q. Thank you.
Now, Dr. Hurst, in arriving at your opinions that the failure modes experienced by Lisa Hyde's G2X filter were contrary to the reasonable expectations of a physician, is that an opinion that you hold to a reasonable degree of medical probability?
A. Yes.
Q. And in terms of the dangers that that filter posed that you

discussed, the migration and the fracture and the embolization to the heart, is that a risk of a filter, a Bard filter, that was never explained or provided to physicians by Bard?
A. The fracture and migration risk was not described adequately, yes.
Q. And is that a risk or, excuse me, a failure that was contrary to the reasonable expectations of a physician, an interventional radiologist?
A. That was a new complication that was unique to that family of devices.
Q. And in terms of that complication, is that a serious complication?
A. Yes. Potentially, it could be life threatening.
Q. And as you know, Lisa Hyde had that strut removed.
A. Yes, she did.
Q. Okay. And who removed that strut?
A. An interventional radiologist named William Kuo at Stanford University, who is an expert at removing failed devices.
Q. Have we discussed all the opinions that you've reached in this case today?
A. Yes.
Q. And are the opinions that you talked to the jury about opinions that you hold to a reasonable degree of medical probability?
A. Yes.

MR. O'CONNOR: Thank you. That's all I have.

THE COURT: All right. Cross-examination.

CROSS-EXAMINATION

BY MR. ROGERS:

Q. Good morning.

A. Good morning.

Q. How are you, Doctor?

A. I'm good.

Q. Good.

I want to kind of pick up where Mr. O'Connor left off, and you had started to talk about Dr. Kuo removing the filter and the strut from Mrs. Hyde's heart; correct?

A. Yes.

Q. And would you agree with me that Dr. Kuo successfully removed both the filter and the fractured strut?

A. Yes, he did.

Q. And would you agree that Mrs. Hyde should have no other future complications from her filter or the strut?

A. That's not my area of expertise, but I don't -- I don't know. I don't know if she'll have any further complications.

Q. Okay. And, Doctor, would you agree with me that you previously had testified that you would not -- that you weren't aware of any complications that she would have?

A. I'm not aware of any complications that she's had post-retrieval.

Q. And would you agree that Mrs. Hyde did not experience any pulmonary embolism for the three and a half years that the filter was in place?
A. Not that we know of.
Q. And would you agree that there is no evidence that her cardiac function has been damaged by the strut that was removed from her heart?
MR. O'CONNOR: Objection. Foundation.
THE WITNESS: I don't know of any.
THE COURT: Hold on just a minute. When he objects, hold on.
I couldn't hear your objection, Mr. O'Connor. Please stand.
MR. O'CONNOR: My objection is lack of foundation.
THE COURT: Okay. Let me look at the question again.
Overruled. You can answer it, sir.
THE WITNESS: Can you repeat your question again, please?
BY MR. ROGERS:
Q. Sure. What I asked you was would you agree that there is no evidence that Mrs. Hyde's cardiac function has been damaged by the strut that was removed from her heart?
A. Not that I know of.
Q. And, Doctor, you testified about several things that were -- that you consider to be possible things that could

happen when a strut enters the heart. Do you recall that?
A. Yes.
Q. And I believe you said that there was some risk that the strut may penetrate the heart; is that right?
A. Yes.
Q. And would you agree there's no evidence of that in Mrs. Hyde's case?
A. I would agree there is no evidence that it penetrated through the heart.
Q. And you also said that the strut may cause some sort of issue with the conduction center of the heart. Do you recall that?
A. Arrhythmias, yes.
Q. And would you agree that there's no evidence of that occurring in Mrs. Hyde's case?
A. Post-retrieval or while she had the --
Q. Post-retrieval.
A. Post-retrieval, I don't think there's any permanent damage that I know about, but that's, again, not -- that's kind of outside my area of expertise, chronic damage to the heart.
Q. And you also mentioned the possibility of experiencing arrhythmias. Do you recall that?
A. Yes.
Q. And would you agree that we have no evidence that Mrs. Hyde has experienced any arrhythmias?

A. I don't know if she's experiencing arrhythmias beyond what -- after her retrieval. I have no idea.
Q. And let me talk to you a little bit, too, about some of the things that you said were risks if a filter penetrates through the cava. Do you recall that?
A. Yes.
Q. And one of the things you said, that it can interact with the bowel. Do you remember that?
A. Yes.
Q. And would you agree with me there's no evidence in Mrs. Hyde's case that her filter interacted with her bowel?
A. I agree.
Q. And would you agree with me there's no evidence in this case that Mrs. Hyde's filter interacted with any muscles in her back?
A. I agree.
Q. And would you agree with me that there's no evidence in this case that Mrs. Hyde's filter interacted with her urinary tract?
A. I agree.
Q. And would you agree that there is no evidence in this case that Mrs. Hyde experienced a pseudoaneurysm because of her filter?
A. That's true.
Q. Doctor, let me ask you a little bit more about your

background and your kind of experience as an expert witness.

Am I correct that you first started doing expert witness work in 2014?

A. Yes.

Q. And so you had been in practice for about 15 years or so?

A. That's correct.

Q. And, Doctor, since then, am I right that you have been an expert in at least 20 medical malpractice cases?

A. At least, yes.

Q. And am I correct that the majority of the work that you have done in those medical malpractice cases has been for plaintiffs who are suing for personal injury?

A. I would say it's about 80 percent.

Q. And am I correct that all of the testimony that you have given in either a deposition or at trial has always been on behalf of the plaintiff in a personal injury case?

A. That's right. My defendant cases haven't gone to court.

Q. And, Doctor, you've got a business that you've created for your expert witness consulting; correct?

A. Correct.

Q. And I believe that's called Tristate Medical Legal Consulting; is that right?

A. Yes. I do some consulting outside of trial testimony and expert witness.

Q. And you have a LinkedIn page; correct?

A. I do. Yes, I do.
Q. And am I correct that you have a mention of your medical legal consulting business on your LinkedIn page?
A. I do, yes.
Q. And is the purpose of that, Doctor, so that if an attorney's out there are looking for an expert witness on LinkedIn, that he may find you or she may find you?
A. No. The purpose is more so that people who want consultation in practice management, and specifically vein practice management and practice building and marketing can contact me.
Q. And have you received any contacts from lawyers through that source?
A. Not through LinkedIn, no.
Q. Okay. But am I right, Doctor, that you also list yourself on expert witness referral sources?
A. Just one, yes.
Q. Okay.
THE COURT: We're going to break at --
BY MR. ROGERS:
Q. And what's the name of the --
THE COURT: Hold on, counsel. We're going to break at this time.
It's 10:30, ladies and gentlemen, so we'll take a 15-minute break. We will resume at 10:45.

Please remember not to discuss the case, and we will see you then.

(Recess taken, 10:30 a.m. to 10:44 a.m.)

THE COURT: You may continue, Mr. Rogers.

MR. ROGERS: Thank you, Your Honor.

Can everybody hear me okay?

BY MR. ROGERS:

Q. Dr. Hurst, before we took the morning break, we were starting to talk about some of the specifics about the expert witness work that you have done.

And I believe we were starting to talk about you listing yourself with some expert witness referral services. Do you recall that?

A. Just one, yes.

Q. And the one that you list yourself with is a company called SEAK?

A. Yes.

Q. Is that right?

A. Yes.

Q. And that's S-E-A-K?

A. Correct.

Q. And, Doctor, have you also accepted legal work through a company called Experts by Experts?

A. I did one case from them, yes.

Q. And the name of that case was *Fish versus Diallo*; is that

correct?
A. Yes.
Q. And am I right that if you accept work through Experts by Experts, they take a 20 percent cut of your fees; is that correct?
A. I think it was 10 or 20, yeah. It was -- yes.
Q. Okay. Thank you.
And the listing that you have with the SEAK expert directory, is that something you pay to do?
A. Yes.
Q. And I believe you pay $600 a year in order to have that listing?
A. Yes.
Q. And am I correct that the SEAK company does more than just list expert witnesses, they also offer services like books and classes for people who want to be experts?
A. Yeah. They offer training, yes.
Q. And I believe you've purchased a book from the SEAK company about being an expert witness; is that correct?
A. Yes. I thought it was important, yeah.
Q. And, Doctor, would you agree with me that the SEAK directory is a way for people who want to be experts to market themselves?
A. Absolutely, yeah. So that -- it's a place where lawyers can find expert witnesses, yes.

Q. And, Doctor, I have with me -- is this the current 2019 SEAK expert directory?
A. Sure looks like it, yes.
Q. And this is what you pay to list yourself in; is that right?
A. Correct, yes.
Q. And, Doctor, am I right that you have got three separate entries in this book?
A. For states, yeah. Three states, yes.
Q. I understand. And so you've got --
A. It goes by state, yeah.
Q. -- one entry for Kentucky; is that right?
A. Correct.
Q. And you have a second entry for --
A. Indiana.
Q. -- Indiana; is that right?
A. Yes. And the next -- and the other one is for Ohio, where -- those are the three states where I'm licensed as a physician and where our practice covers.
Q. Thank you.
So your third listing is for Ohio; is that correct?
A. Yes. Yeah.
Q. And am I correct, Doctor, that the only state that you admit and treat patients is Ohio? That's the only state?
A. The only --

Q. Excuse me, Kentucky. Forgive me.
A. The only state where we admit and treat patients is Kentucky, yes. We cover a hospital in Indiana as well.
Q. Right. But you don't --
A. We don't do -- but this is -- we just took over the practice for that hospital six months ago. We are in negotiations for call coverage and IR coverage, so yes, we'll -- eventually Indiana.
Q. And, but that hasn't happened yet?
A. No, not yet.
Q. All right. But you're listed in all three states in this expert witness directory; correct?
A. Right.
Q. And you only treat and perform procedures on patients in one state, and that's Kentucky?
A. Correct.
Q. Doctor, in addition to this physical book, am I correct that the SEAK service also has got a website?
A. Yes.
Q. And so if I'm a lawyer looking for an expert, I can go on that and try and find an expert; is that right?
A. Absolutely.
Q. And you're on their website as well; correct?
A. Yes.
Q. And, Doctor, did you write the description of your

expertise that appears on that website?
A. I did.
Q. And did you think it was important to include all the information about you that you would want lawyers to know about?
A. Sure. When you're -- yeah. Yeah.
Q. And, Doctor, is one of the areas of expertise that you include on the SEAK website called expertise in IVC filter product liability cases?
A. Yes.
Q. And that's a description that you wrote?
A. It is.
Q. And that's the type of case that we're here for today; correct?
A. That's correct.
Q. And did you think it was important for lawyers who might be looking for an expert witness in an IVC filter product liability case to know about you?
A. Yeah.
MR. O'CONNOR: Objection.
THE WITNESS: Absolutely.
MR. O'CONNOR: Calls for speculation.
THE COURT: Overruled. Overruled.
THE WITNESS: Yeah.

BY MR. ROGERS:
Q. The answer is yes?
A. Yes, yeah.
Q. Okay. Thank you.
And, Doctor, let's do talk a little bit more about your experience with IVC filters. Am I right that you have never published an article on IVC filters?
A. No.
Q. And you've never published any books or book chapters about IVC filters?
A. No. I'm a private practice physician. I practice in a large tertiary care medical center. The research that we do is predominantly registry based. We submit patients to larger studies. My practice is so busy that I don't have time to write papers.
Q. So I'm correct that you've never published on IVC filters?
A. I've never published on IVC filters. I have published papers, but not on IVC filters.
Q. Thank you.
And, Doctor, you've never designed an IVC filter; correct?
A. I have not.
Q. And you've never worked for a medical device company?
A. No.
Q. And so you have no experience whatsoever in the process

that is necessary in order to design an IVC filter and bring it to market?
A. I have no personal experience, no.
Q. And, Doctor, you are a member of an organization called the Society of Interventional Radiology; correct?
A. I am.
Q. And that's composed of doctors like yourself who are interventional radiologists?
A. Correct.
Q. And that group has meetings from time to time; is that correct?
A. Yes.
Q. And that would include an annual meeting every year where all the members are invited?
A. Correct.
Q. And, Doctor, am I right that you have never given any presentations at the SIR meetings about IVC filters?
A. No.
Q. And have you ever given a presentation at an SIR meeting?
A. No. I presented at R, S and A, which is a larger meeting.
Q. Thank you.
And, Doctor, within this group, the SIR, is there something that you can become called a fellow?
A. Yes.
Q. And that would be a fellow of interventional radiology?

A. Well, no. It's not a fellow. A fellow -- so there's two uses of the word "fellow." So there's a fellow in interventional radiology who is doing a fellowship. That means you're in advanced subspecialty training in interventional radiology.

And then you can become a fellow, which is a designation that the Society of Interventional Radiology has. It's predominantly, about 90 percent of it is academic physicians, and it's based on articles published, number of articles published and years in an academic institution. There are very few private practice physicians who are given fellow status, mainly because one of the criteria is the number of papers that you have to submit.

Q. And, Doctor, am I right that only about 5 percent of the members of the SIR are deemed fellows?

A. Yes. It's small.

Q. Is it an honor to be deemed a fellow by that organization?

A. Yeah, absolutely.

Q. And you have never been through that vetting process to become a fellow; correct?

A. Again, I wouldn't qualify. I'm not an academic physician. I don't work in an academic hospital, and I don't -- not tenured. I don't have to produce papers for tenure or anything like that.

Q. And it's your testimony today that unless you're an

academic, you cannot become a fellow of the SIR?
A. That is not entirely true. I mean, you can. There are different ways, through community service, teaching, other ways to become a fellow. But predominantly, it is based on being an academic physician and journals, articles.
Q. Doctor, you've never held any positions in the SIR; is that correct?
A. No, I have not.
Q. Let me shift gears and talk a little bit about something you covered, and that was how you charge for your time.
And, Doctor, I believe you said that you charge $500 an hour to review records; is that right?
A. That's correct.
Q. And if you have to give a deposition in a case, you also charge for that?
A. Yes. $750 an hour.
Q. And am I right, Doctor, that in 2016, you increased your hourly fee for depositions from $600 an hour to $750 an hour?
A. Correct. Because it takes more time away from my practice during the day when I can be seeing patients.
Q. And you felt that justified the increase in raising your rates, so to speak?
A. Yes, uh-huh.
Q. And, Doctor, let me ask you one time -- one more time: Is it your testimony today that the reason you changed your fee

was because it takes more time being away from your practice; is that correct?
A. Yes.
Q. All right. And, Doctor, do you recall a case called *Alley versus Tulsa X-Ray*?
A. Vaguely.
Q. And that was a medical malpractice case in Oklahoma that you were involved in; do you recall that?
A. Okay.
Q. And do you remember giving a deposition in that case?
A. Vaguely, yes. I think it was a few years ago.
MR. ROGERS: Can we pull that up, please? That's from March 15th, 2016.
And, Scott, if you would, can you go to page 9, line 18.
BY MR. ROGERS:
Q. Doctor, can you see this testimony?
A. Yes.
Q. And you would agree with me that when you gave this testimony, you were under oath just as you are today; correct?
A. Yes.
Q. And you would agree with me that you were obligated to tell the truth; right?
A. Right.
Q. Just like what you're telling this jury today; correct?

A. Yes.
Q. And if you read along with me on page 9, beginning at line 18, do you see that?
A. I do.
Q. And the question is: How much do you charge for giving depositions?
And was your answer $750?
A. Correct.
Q. And next question: From reading your previous two depositions, the price went up?
And your answer was yes?
A. Yes.
Q. And next question: When did it go up?
And your answer is: I had a discussion with a friend of mine who's a malpractice attorney.
Did I read that correctly?
A. That's correct. I had a discussion with a friend of mine who said, "You should be charging more if you're away from your clinic."
Q. Okay. Well, let's continue on.
And the next question is: So when did it go up?
Is that correct?
A. Yes.
Q. And your answer: I think it went up two months ago, three months ago.

Is that correct?
A. Right.
Q. And next question: One of the depositions you've previously given was this past January.
And you responded: Right.
Correct?
A. Correct.
Q. And next question is: And the fee went up since then?
And your answer is: Correct.
A. Yes.
Q. And the next question is: Does the fee for record review, has it changed as well?
A. No.
Q. Right. And you responded: No.
And then at line 13, the next question is: So your friend who is a malpractice attorney, he advised you that you were cheap?
And your response was: Yes.
Correct?
A. Correct.
Q. Thank you, Doctor.
And what are you charging to appear in court today?
A. 6,000.
Q. And is that a fee that you charge for the entire day?
A. Yes.

Q. And did you charge that same $6,000 fee for traveling out here?
A. That includes the travel out here, but it's basically by half day. So if I have to leave my practice for a half day, it's 3,000. So I left yesterday, Cincinnati, Ohio, at, you know, 3:00 in the afternoon or 4:00 in the afternoon. And so that will be a $3,000 charge, and then today I will be here the whole day. I will likely get home at somewhere -- if I can get a flight out, sometime after midnight. And so that will be $6,000 for today.
Q. So that will be a charge of at least $9,000?
A. $9,000, yes.
Q. Correct?
And if you couldn't get out today, are you going to charge again for tomorrow?
A. Yeah, probably.
Q. Okay. And would you charge the 3,000 or the 6,000?
A. I would charge the 3,000 because it would be a half day.
Q. All right. Thank you.
And, Doctor, let me follow up again on a different line of questioning. I believe you testified that you currently place a Bard filter called the Denali filter; is that right?
A. Yes, I do.
Q. And when is the last time you implanted a Bard Denali

filter?
A. I would say it's probably about three or four weeks ago.
Q. And do all the facilities where you implant filters, do they all keep Bard filters in stock?
A. Yes. That is our retrievable filter.
Q. And am I correct that you testified on direct examination that you were on something called a product committee or product assessment committee?
A. I'm the chair of our product committee for interventional radiology and vascular surgery, yes.
Q. And I believe you stated that you vet products as part of that process with that committee?
A. We do, yes.
Q. And the Denali filter has been through this vetting process with your committee?
A. Yes, it has.
Q. And, Doctor, when you first became involved in this litigation, were you using the Bard Denali filter?
A. Yes.
Q. And you haven't stopped; is that correct?
A. We have not.
Q. And you never stopped; is that right?
A. We did not stop using the Denali device because the Denali device as a retrievable filter, the way we use it, we don't leave it in the patient as a permanent device. The

modifications that were made to the device over the series of devices from the original Recovery device through the G2, the G2X, the Eclipse, and the Meridian, each one of those devices, as problems were coming up, they were making changes.

And the Denali filter as a retrievable device is an acceptable device based on how we use it. We don't leave it in the patient for longer than three months, usually. And if the patient does need a permanent device, we will retrieve that Bard filter to get it out of the patient and put in a permanent device.

Q. And, Doctor, let me ask you one more time: Was there a point when you became involved in this litigation that you stopped using the Denali filter?

A. No, I never stopped using it. I mean, we sometimes use the Gunther Tulip as an alternative device. And some of that may have been based on stocking. But I don't think I ever stopped completely using it.

MR. ROGERS: Can we pull up Dr. Hurst's prior testimony from August 9, 2016? Excuse me, August 19, 2016. And can you go to page 32, please.

And, Doctor -- excuse me. Not Doctor. I'm sorry.

Your Honor, may I publish lines 32, line 17, to page 33, line 3?

THE COURT: To the witness?

MR. ROGERS: To the jury. Well, I would like to

publish it in video format, if I can.

THE COURT: Oh, you mean display it?

MR. ROGERS: Yes, Your Honor.

THE COURT: Let's talk about that for a minute, counsel.

You can stand up, ladies and gentlemen.

(At sidebar on the record.)

THE COURT: Is that a deposition in this case?

MR. ROGERS: No, sir, it's not in the MDL. It is in a filter case, called the Austin case.

THE COURT: Okay. Is there an objection?

MR. O'CONNOR: Yes.

THE COURT: What's the basis?

MR. O'CONNOR: Well, you haven't allowed us to publish testimony to the jury in any of these cases. I mean --

THE COURT: Well, I have on cross-examination with depositions taken in the case.

MR. O'CONNOR: You've allowed us to cross them and read them, but you have not allowed us --

THE COURT: Yeah. We play deposition excerpts during cross in trials.

MR. ROGERS: It happened in Booker.

THE COURT: I know that's happened, but this isn't a deposition in this case?

MR. ROGERS: It was not taken in the MDL, Your Honor.

It was taken in a state court case.

THE COURT: Okay. So what's the basis for your objection?

MR. O'CONNOR: My objection is it was a state court case. It's irrelevant to any testimony he gives in this case, the MDL.

THE COURT: Well, it's clearly not irrelevant, I mean, if it's testimony he's given on a filter issue. So I don't think irrelevancy works.

MR. LOPEZ: That's going to open the door. He's going to be able to talk about that case then.

MR. O'CONNOR: Yeah, I mean, that is a problem. They want to impeach them under the cases you've restricted us to, not allowing them to talk about other litigation. It puts us in a bind. It puts this expert in a bind. I mean, Austin I think was one of the early ones that he became involved in in this case, and --

THE COURT: What is the rule under which you want to play the deposition?

MR. ROGERS: I'd like to impeach him, Your Honor. And --

THE COURT: What's the impeachment?

MR. ROGERS: The impeachment is he -- and, I'm sorry, he's sitting here listening to me talk. But the impeachment is he is --

THE COURT: He can't hear you with --

MR. ROGERS: Well, he's looking at me.

But he just testified on the stand completely contrary to what he testified to in this deposition.

THE COURT: On what? That he stopped using the Denali?

MR. ROGERS: Yes, sir. Yeah.

THE COURT: So --

MR. ROGERS: He testified in the deposition he stopped using the Denali filter because of what he learned in this litigation.

THE COURT: Okay. So Rule 613(b) says: Extrinsic evidence of a witness's prior inconsistent statement is admissible only if the witness is given an opportunity to explain or deny the statement and an adverse party is given an opportunity to examine the witness about it, or if justice requires.

But -- well, 613(a) says -- well, that's about cross-examining on a statement.

So they can introduce extrinsic evidence of a prior inconsistent statement. You get the chance to question him about it. That's what this appears to be.

Is there any basis for your objection of its admissibility or its use under 613(b)?

MR. O'CONNOR: Well, I don't have the rule in front of

me, but from what you read, I agree. But the problem is, Your Honor, is they do this and then they want to limit him explaining what the case was, what the circumstances of that case was, and it's a whole different case.

He has testified in a number of Bard cases.

THE COURT: Well, I would agree with that if what he was doing was giving an opinion about the other case, like about a filter. But if he's talking about his practice of using Denali filters, that's not specific to a case. That's his practice.

MR. O'CONNOR: Well, I haven't looked at the testimony. I was unaware that they were going to do this today. I don't know. Did you disclose that as an impeachment?

MR. ROGERS: I'm not obligated to disclose impeachment.

THE COURT: He's not obligated to disclose impeachment.

MR. O'CONNOR: Well, they didn't list this to us last night that they were going to use this with this witness. I mean, if it's just for something he said about his use of the Denali, I don't see that we can stop him from doing that under that rule.

MS. REED ZAIC: He gets to explain --

THE COURT: Gets to explain what?

MR. LOPEZ: It says he has an opportunity to explain

that.

THE COURT: To explain the inconsistent statement?

MR. LOPEZ: Right. Right.

THE COURT: I agree with that. But I don't think it opens the door to him testifying about the Austin case.

MR. LOPEZ: I don't know if it does. Maybe part of his explanation has to do with -- I don't know.

THE COURT: My view is it won't unless he starts -- if he's asked something about the Austin case. If he's asked about his practice on Denali, my view is that doesn't open up the Austin case.

So I'm going to overrule the objection.

MR. LOPEZ: Thank you, Your Honor.

(End of discussion at sidebar.)

THE COURT: Thanks for your patience, ladies and gentlemen.

MR. ROGERS: Can you pull the testimony back up, please?

And, Your Honor, may I publish this testimony via video deposition?

THE COURT: Yes.

MR. ROGERS: Thank you, Your Honor.

These are the words. I want to publish the video deposition.

Okay. Your Honor, I apologize. We don't have the

video loaded, so that's my bad.

THE COURT: Okay. Then what you can do is have him look at the transcript and you can ask him about it.

MR. ROGERS: Thank you, Your Honor.

BY MR. ROGERS:

Q. Dr. Hurst, do you agree that the first question in this deposition is: Did you stop using the Bard Denali filter?

And your response is: Yes.

Correct?

A. Correct.

Q. And next question: When did you stop using the Bard Denali filter?

And your answer was: Two months ago.

Correct?

A. Correct.

Q. Next question: What caused you to stop using the Bard Denali filter two months ago?

And your answer was: My involvement in this case, what I've learned about retrievable filters and the behavior of conical retrievable filters, especially the Bard devices.

Did I read that correctly?

A. Correct. And we did stop using the Bard Denali filter as a permanent device. That's what I meant by that.

Q. And just to call your attention to your testimony, did I read it correctly where you said "I've learned about

retrievable filters and the behavior of conical retrievable filters, especially the Bard devices"?
A. Correct. I learned how retrievable devices cannot be used as a permanent device.
Q. And you continue to use the Bard Denali filter as a retrievable device today?
A. Yes.
Q. Thank you.
Doctor, you gave some testimony in your direct examination with Mr. O'Connor about some Bard documents. Do you recall that?
A. I do.
Q. And do you also recall writing a report in this case?
A. Yes, of course.
Q. And your report was signed by you on June the 2nd, 2017; is that right?
A. Yes.
Q. And when you wrote that report, were you trying to give as complete a picture and as accurate a picture of your opinions in this case?
A. With the available evidence, yes.
Q. And am I correct that when you wrote that report, you identified somewhere between 20 and 25 Bard documents; is that right?
A. That's correct.

Q. And so you rendered your opinions in this case based on those 20 to 25 documents; is that right, Doctor?
A. Well, I don't think that's entirely true. I've been involved in several of these cases, and I've reviewed many.
MR. ROGERS: Objection, Your Honor. The witness is --
THE COURT: Well, I think you shouldn't describe other cases, but I think he can respond fairly to what he has been exposed to as the basis for --
MR. ROGERS: Thank you, Your Honor.
THE WITNESS: In the course of reviewing multiple cases, I've reviewed many, many, many Bard documents, some of which might not be included in that list.
BY MR. ROGERS:
Q. And am I correct when you prepared your opinions in Mrs. Hyde's case, the case we're here for today, you identified these 20 to 25 documents; is that right?
A. I did, yes.
Q. And am I correct that those documents were provided to you by plaintiffs' counsel?
A. Those documents were part of a large Dropbox, a repository of information from this case. There's over a million documents in this case that are available.
Q. And, Doctor, when you wrote your opinion in 2017, you did not have access to that Dropbox, did you?
A. I don't know.

Q. Well, you certainly didn't include anything about a Dropbox or thousands of pages of documents in your report in this case involving Mrs. Hyde, did you?
A. I did not.
Q. And, Doctor, you felt comfortable rendering all your opinions based on these 20 to 25 documents that were provided to you by plaintiffs' counsel; is that correct?
A. I don't -- no, that's not correct. I just said that I've probably reviewed hundreds and hundreds of Bard documents.
Q. I'm hearing you, Doctor, but when you wrote your report in this case about Mrs. Hyde, you didn't identify any of those documents --
A. I didn't --
(Court reporter clarification.)
THE COURT: Let's not interrupt each other.
Ask the question again.
BY MR. ROGERS:
Q. Doctor, when you wrote this report, you only identified 20 to 25 Bard documents that you had reviewed; true?
A. I identified 25 documents in the report.
Q. All right. Thank you.
And, Doctor, am I correct that you implant other IVC filters besides Bard filters?
A. Yes.
Q. And you currently implant a filter called the VenaTech

filter; is that right?
A. I do.
Q. And you currently implant a filter called the Gunther Tulip?
A. I do.
Q. And am I right that you have never seen any internal documents from any other filter manufacturer other than Bard?
A. I have never seen any documents from other -- other than Bard.
Q. And is that true for any medical device that you use in your practice?
A. Not necessarily true. There are times when we go to Boston Scientific and they do reveal documents to us about new products.
Q. And is that when you're a consultant for that company?
A. No. That's when I'm a physician learning about devices.
Q. All right. But as far as IVC filters are concerned, you've never seen any internal documents of any company other than Bard; is that right?
A. Correct.
Q. And you have no earthly idea what is in any internal document from any other filter manufacturer; is that true?
A. That's true.
Q. And you've never seen any internal documents that relate to the Gunther Tulip or to the VenaTech filter; is that right?

A. I have not.
Q. And you feel comfortable using those products; correct?
A. I feel comfortable using those products, yes.
Q. Doctor, kind of a few silly questions, so forgive me.
But the G2X and the Eclipse filters could be either left in permanently or retrieved at the election of the doctor; correct?
A. Yes. That's how they were marketed.
Q. And if you place a permanent filter like the Simon Nitinol filter, it is intended to remain in the patient for the patient's life; is that correct?
A. That is correct.
Q. And, Doctor, would you agree with me that all IVC filters have risks?
A. All medical devices have risks, yes.
Q. And that's true of IVC filters; correct?
A. Yes, it is.
Q. And with regard to IVC filters, would you agree that all current retrievable filters can fracture?
A. Yeah. Yeah, they can.
Q. And would you agree with me that all IVC filters, both permanent and retrievables filters, can perforate or penetrate the walls of the IVC?
A. Correct.
Q. And would you agree that the Gunther Tulip, another

retrievable filter that you implant currently, can also migrate caudally?
A. Yes, it can migrate caudally.
Q. And would you agree that the Gunther Tulip can also tilt from time to time?
A. It's a conical device, yes. It's shaped like a cone, so it can tilt.
Q. And, Doctor, you implant IVC filters knowing that they have the potential to tilt, caudally migrate, perforate the IVC wall, and fracture; is that right?
A. Yes.
Q. And when you implant an IVC filter, do you do it in order to provide a potential benefit to your patient?
A. Yes.
Q. And is that true of the Bard Denali filter that you currently implant?
A. Yes.
Q. And the benefit is to potentially save the patient's life if they're at high risk of pulmonary embolism; is that true?
A. Potentially, yes. You could block PE, yes.
Q. And do you need to make an individual determination, patient by patient, based on that patient's individual medical history if the potential benefits of the device outweigh the potential risks?
A. Yes. That's the informed consent process.

Q. Doctor, let's talk a little bit more about some of these complications that you talked about, or potential complications.

And would you agree with me that the fracture of an IVC filter can be an asymptomatic event?

A. Yes, fracture can be, especially if it stays right where -- especially if it doesn't move, yes.

Q. And by asymptomatic, it would mean that it doesn't cause the patient any symptoms?

A. Correct.

Q. And would you also agree with me that penetration of the IVC by a filter can also be an asymptomatic event?

A. Yes, it can.

Q. And can tilt be an asymptomatic event?

A. Absolutely.

Q. And can caudal migration be an asymptomatic event?

A. Yes.

Q. And, Doctor, would you agree that all medical devices, including IVC filters, can be made safer?

A. Yes.

Q. And do you think that that's something a company should strive to do?

A. Absolutely.

Q. Doctor, let's turn our attention specifically to Mrs. Hyde, if that's okay.

A. Sure.
Q. And you would agree with me that Mrs. Hyde was an appropriate patient to receive an IVC filter when she got it in 2011; correct?
A. Yes.
MR. ROGERS: And if you would, can we pull up Exhibit 8695, please?
And, Your Honor, I'll move this into evidence.
THE COURT: Any objection?
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8695 admitted into evidence.)
MR. ROGERS: May we publish, Your Honor?
THE COURT: Yes.
BY MR. ROGERS:
Q. And, Doctor, is this up on your -- on the jury's screens?
JURY MEMBER: Yes.
BY MR. ROGERS:
Q. Doctor, this is a medical record that relates to Mrs. Hyde; correct?
A. Yes.
Q. And you would agree with me that this is the record from her admission to the emergency department on February the 24th, 2011; right?
A. Correct.

Q. And this is one of the records that you reviewed when you were writing your report in this case; right?
A. That is correct.
Q. And, Doctor, would you agree with me at the time -- let's see. I'm going to get to pull out a little bit of language here.
A. Uh-huh.
MR. ROGERS: If we would pull out that first paragraph, please.
BY MR. ROGERS:
Q. And can you see that okay, Doctor?
A. Yes.
Q. And, Doctor, would you agree with me that Mrs. Hyde was identified at this point as a 46-year-old female; is that right?
A. Yes.
Q. And she had right thigh pain; is that true?
A. According to this document, yes.
Q. And she had shortness of breath and dyspnea; is that right?
A. Yes.
Q. And can you explain for the jury what dyspnea is?
A. It's basically saying shortness of breath again, but yes.
Q. Does it imply any sort of pain with breathing?
A. Usually not. Maybe a little bit, but -- yeah.
MR. ROGERS: Okay. Thank you. You can pull that part

down.

And let's go to the next paragraph, please, and if you would pull that out.

BY MR. ROGERS:

Q. And, Doctor, this next paragraph, does it describe some of the patient's history with similar events?

A. Yes.

Q. And would you agree with me that the record says that the discomfort she had in the right thigh was similar to pain that she had in the past with a history of DVT; is that right?

A. That's correct.

Q. And, Doctor, would you agree that the next line says: Patient states that she had this discomfort, but she's never had it in the thigh.

Is that right?

A. Yes.

Q. And does the record go on to say that she had had a history of DVT twice in the past; is that right?

A. Yep.

Q. And the first DVT was about 22 years ago; is that correct?

A. Yes.

Q. And it was presumed to be associated with birth control pills; correct?

A. Correct.

Q. And, Doctor, is there a known association between birth

control pills and experiencing blood clots?
A. Yes.
Q. And the next one indicates that about two years ago, she had a recurrent DVT and PE noted on the CT scan. Is that right?
A. That is right.
Q. And that would have been in about 2009; is that correct?
A. Yeah.
Q. And does it indicate that the DVT and PE in 2009 were treated with anticoagulants?
A. Yes, it does.
Q. And, Doctor, on this day, did the treating doctors --
MR. ROGERS: And we can pull this down. Thank you.
BY MR. ROGERS:
Q. -- did they perform a CT scan on Mrs. Hyde?
A. They did.
Q. And that's an image that you reviewed in preparing your opinions in this case; correct?
A. I did.
Q. And, Doctor, would you agree with me that that CT scan showed that Mrs. Hyde had pulmonary embolism in both her right lung and her left lung?
A. It did.
Q. And would you agree with me that the pulmonary embolism in her right lung was large?

A. It was pretty good size, yes. Moderate, yeah.
Q. Moderate?
MR. ROGERS: Can we pull up Exhibit 8694, please.
BY MR. ROGERS:
Q. And, Doctor, I would --
MR. ROGERS: Your Honor, first let me move this into evidence, please.
MR. O'CONNOR: No objection.
THE COURT: 8694 is admitted.
(Exhibit No. 8694 admitted into evidence.)
MR. ROGERS: And may we publish?
THE COURT: You may.
BY MR. ROGERS:
Q. And, Doctor, you would agree with me that this is the report that the radiologist that read the CT at the hospital where Mrs. Hyde was treated, that this is that doctor's report; correct?
A. That's correct.
Q. And under the section that says Impression, do you see that?
A. It says "large central pulmonary emboli."
Q. Right. And you don't disagree with the treating doctor's description this was large?
A. I don't disagree with that.
Q. Okay. Thank you, Doctor.

MR. ROGERS: And can we flip back to the -- well, I don't know that we need to do this. You can pull that down, please.

BY MR. ROGERS:

Q. But when Mrs. Hyde was hospitalized with this PE and DVT, would you agree with me that she was treated with anticoagulants?

A. Yes.

Q. And she received initially intravenous anticoagulants; is that correct?

A. Heparin, yes.

Q. And, let's see. Hang on.

And, Doctor, do you agree that Mrs. Hyde, as part of this hospitalization, was ultimately diagnosed with a clotting disorder?

A. That's correct.

Q. And was the clotting disorder known as protein C deficiency?

A. Yes.

Q. And is that a congenital disorder that Mrs. Hyde was born with?

A. Yes.

Q. And is that going to be a lifelong disorder?

A. Yes.

Q. And would you agree with me that that disorder necessitates

that she take anticoagulants for life?
A. Absolutely.
Q. And after she was admitted to the hospital, do you agree that she received an IVC filter the following day?
A. She did.
Q. And would you agree with me that the filter that was implanted was intended to be a retrievable or a temporary filter?
A. I think the filter was -- they placed it -- no, I won't agree with that. I mean, it was intended to be either retrievable or permanent. I mean, I don't know that the intent was clearly stated.
Q. As part of your preparation of your report, you said you reviewed some depositions; right?
A. Correct.
Q. And I believe you did not review the deposition of Dr. Henry, the implanting doctor, when you prepared your report; is that correct?
A. I did not have that deposition at that time.
Q. Okay. Thank you.
MR. ROGERS: And can we pull up Exhibit 8697, please.
And, Doctor -- Your Honor, I keep calling you Doctor. I apologize. But I move this into evidence, please.
MR. O'CONNOR: No objection.

BY MR. ROGERS:

Q. And, Doctor, do you have this form --

THE COURT: Hold on.

Mr. O'Connor, is there an objection?

MR. O'CONNOR: Oh, I said no objection, Your Honor.

THE COURT: Okay. A little louder, please.

MR. O'CONNOR: I will. Thank you.

THE COURT: 8697 is admitted.

(Exhibit No. 8697 admitted into evidence.)

MR. ROGERS: May we publish?

THE COURT: You may.

BY MR. ROGERS:

Q. And, Doctor, would you agree with me that this is one of the records that is part of the procedure that Mrs. Hyde went through prior to receiving her IVC filter?

A. Yes.

Q. And do you see down there at the physician's signature, does it indicate D. Henry?

A. It does.

Q. And that's the doctor that implanted the filter?

A. Yes.

Q. And if we look there up at number 4 where it says Procedure, do you see that?

A. Yes.

Q. And would you agree with me that it says: Inferior vena

cavagram and temporary IVC filter?
A. I do.
Q. Thank you.
And, Doctor, just to ask you a little bit more about this particular hospitalization --
MR. ROGERS: Can we pull up Exhibit 8512, please.
And, Doctor -- Judge, I'm sorry. I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8512 admitted into evidence.)
MR. ROGERS: May I publish?
THE COURT: You may.
BY MR. ROGERS:
Q. Doctor, would you agree that this is one of the records from the cath lab where Mrs. Hyde's filter was implanted?
A. Yes.
Q. And you see up there at the top, the date is February 25th, 2011?
A. It is.
Q. Is that right?
A. Yeah.
Q. And, Doctor, the writing that's on there, would you agree that that came from the original medical record? It wasn't added later?

A. It looks like it, yes.
Q. And if we look at this, is this a way of monitoring Mrs. Hyde's vital symptoms during this procedure?
A. Yes.
Q. And, for instance, at the very top thing that -- on the left-hand column that says HR, is that heart rate?
A. Yes.
Q. And is this the type of thing that when somebody's undergoing a procedure like the placement of an IVC filter, these vital signs are being monitored throughout the procedure?
A. That's correct.
Q. And, Doctor, if we look at that very first column up at the top, and it's highlighted now, do you see where that says 1305?
A. I do.
Q. And is that military time for 1:05? Is that right?
A. Yes.
Q. And so would that be 1:05 in the afternoon?
A. Correct.
Q. And so would you agree with me that this procedure to implant Mrs. Hyde's filter began sometime around 1:00 o'clock in the afternoon; is that right?
A. Yes.
Q. And it looks like it concluded somewhere around 1:45; is that correct?
A. That looks like it, yeah.

MR. ROGERS: All right. You can take that down, please.

BY MR. ROGERS:

Q. Dr. Hurst, would you agree that a few weeks after Mrs. Hyde received this IVC filter, that she again reported to the emergency room?

A. Yes.

Q. And did you review those records as part of the preparation of your report?

A. Yes.

MR. ROGERS: And can we pull up, please, Exhibit 8705?

And, Your Honor, I move this into evidence.

MR. O'CONNOR: No objection.

THE COURT: Admitted.

(Exhibit No. 8705 admitted into evidence.)

MR. ROGERS: May we display?

THE COURT: Yes.

BY MR. ROGERS:

Q. And, Doctor, do you agree with me that this is the emergency department chart from where Mrs. Hyde went to the hospital in -- I believe that's March 16th, 2001 [sic]; is that right?

A. It is.

Q. And this would have been about three weeks after she had her IVC filter implanted; is that correct?

A. That's correct.
Q. And when she presented on that day, was she again complaining of chest pain? Is that right?
A. Yes.
Q. And was a CT scan ordered in order to see what was going on?
A. Yes.
Q. And you reviewed that CT scan; is that right?
A. Yes.
MR. ROGERS: And could we pull up Exhibit 8706, please?
And, Your Honor, I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8706 admitted into evidence.)
MR. ROGERS: May we publish?
THE COURT: Yes.
BY MR. ROGERS:
Q. And, Doctor, do you agree with me that this is the report from the CT scan that was done on Mrs. Hyde in March of 2011?
A. Yes. This is from the CT angiogram of her chest, yes.
Q. Thank you.
And would you agree with me that this -- the impression indicated that it was positive for pulmonary emboli; is that correct?

A. That is correct.
Q. And it was on both sides of her lung; is that accurate?
A. Yes.
Q. But this clot burden had decreased when the radiologist compared it from three weeks ago; is that correct?
A. Yeah, that's usually what occurs.
Q. And during this time period, Mrs. Hyde would have been on anticoagulants; is that right?
A. Yes.
Q. And would you agree with me that this means that the anticoagulants that Mrs. Hyde was taking were working?
A. Well, actually, anticoagulants don't cause the clot to break up. It's actually your own internal clot lysis system that breaks down the clot.
Q. Okay.
A. So the reason that you use anticoagulants is so that you do not have further extension of the clot. It actually does not break up clot.
Q. All right. But you would agree that this -- the clot in her right lung had shrunk from three weeks prior; right?
A. It was undergoing the normal maturation process, yes.
Q. And you would agree with me that this is the same clot that she had three weeks before; correct?
A. Definitely.
Q. And so would you agree that at this point in time,

Mrs. Hyde was still at risk of pulmonary embolism?
A. Well, she had -- she had chronic PE at this point. She was still at risk for -- what do you mean by that? You'll have to -- I don't know what you mean by that.
Q. Well, she still had some clot; is that accurate?
A. She still had some clot, yes, in her pulmonary arteries.
Q. And she also had a clot in her leg, the DVT; correct?
A. Correct, but she was receiving anticoagulation.
Q. I agree with you. But do you agree that that clot was still potentially in her leg three weeks out from prior?
A. Oh, yeah. And it would undergo the same maturation process as well.
Q. And so is it certainly possible that that clot that's in her leg could still -- a piece could break off and could travel to her lungs without protection?
A. Well, that potential is extremely small. That's why she's on anticoagulants is so that that clot doesn't get larger and then break free.
Q. Understand, but that potential is there. Do you agree?
A. Very small, yes.
Q. But you agree there is a potential; right?
A. Correct.
Q. And so Mrs. Hyde was at risk for a pulmonary embolism at this point; correct?
A. Well, her protein C deficiency makes her at risk for

pulmonary embolism and recurrent DVT. That's really the biggest issue.

Q. Okay. Thank you.

And, Doctor, if you would, before we move on from this, above the Impression section, am I correct that the radiologist that read this CT study noted that Mrs. Hyde had degenerative changes of her spine?

A. That would be the thoracic spine, not the lumbar spine.

Q. Well, would you agree with me that it noted that she had degenerative changes of the spine?

A. I agree that that -- yes.

Q. And would you agree that degenerative changes of the spine can cause back pain?

A. In this particular case, that would be upper back pain, because the images were not lower than T12, which is the lowest thoracic level, which is about the level of your -- where your chest ends.

Q. Okay, Doctor. Let's --

MR. ROGERS: We can take this down, and let's kind of move on.

BY MR. ROGERS:

Q. And I want to move now to December 2011, to that time period.

And do you recall that you showed the jury a 3D image from a CT scan from that time period? Do you recall that?

A. I do.
Q. And I believe you showed the jury how that 3D image, in your opinion, showed how the filter was interacting with Mrs. Hyde's spine; is that right?
A. With the L3 vertebral body, yes.
Q. And three weeks before that CT scan was performed, were you aware that Mrs. Hyde had a pelvic ultrasound performed?
A. I'm pretty sure I have that, yes.
Q. And that was not included in your report as any of the imaging that you reviewed; correct?
A. Yeah. I didn't think it added anything, but yes.
Q. I'm sorry. Say again?
A. I didn't think it added anything, so I didn't add it to my report.
MR. ROGERS: Okay. Can we pull up Exhibit 8709, please.
Your Honor, I move this into evidence.
MR. O'CONNOR: I'm sorry. What number is it?
MR. ROGERS: 8709.
MR. O'CONNOR: May I just take a second to look at this one, please?
No objection.
THE COURT: Admitted.
(Exhibit No. 8709 admitted into evidence.)
MR. ROGERS: May we publish?

THE COURT: You may.

BY MR. ROGERS:

Q. Doctor, would you agree that this is the treating radiologist's report from the ultrasound that was performed on Mrs. Hyde's abdomen?

A. Yes.

Q. And this was done, again, three weeks before -- or, excuse me, this was done toward the latter part of the year after she had had the IVC; is that right?

A. After she had a filter implanted, yes.

Q. Thank you.

But this was about three weeks before the image that you showed the jury that was in that 3D format; is that correct?

A. Yes.

Q. All right. And would you go to the Impressions section, please, next page.

And under the Impressions section, would you agree with me that it notes that she had small bilateral renal calculi?

A. Yes.

Q. And is that something that we would commonly call a kidney stone?

A. Correct.

Q. And so she had kidney stones in both of her kidneys; is

that accurate?
A. In the kidneys, yes.
Q. All right. Can we move on, then, to the next page.
And, Doctor, is this another report from the same pelvic ultrasound?
A. Yes.
Q. And can we go to the Impressions section there, please.
And, Doctor, would you agree with me that it notes that Mrs. Hyde had a left ovarian cyst that measured 3.5 centimeters?
A. Yes.
Q. And would you agree with me that kidney stones and ovarian cysts can cause pain?
A. Yes.
Q. Doctor, let me ask you a little bit about this -- the 3D image that you showed the jury.
A. Sure.
Q. Am I correct that that particular study from December of 2011, that CT scan was not something that you disclosed in your report that you had reviewed?
A. The image that I showed wasn't from 2011.
Q. The image you showed that was the 3D scan?
A. It was not.
MR. ROGERS: Can we pull that up? Do you have access to it?

Beg the Court's indulgence.

THE WITNESS: It's a sagittal reconstruction from 6/14/13.

MS. HELM: 4873.

MR. ROGERS: 4873?

BY MR. ROGERS:

Q. And that's the image that you showed the jury; is that correct?

A. That is.

Q. And that's from 2013; is that right?

A. Yes.

Q. Okay. Thanks for that correction, Doctor.

And let me ask you this about this image now that we have it up.

MR. ROGERS: May we display, Your Honor?

THE COURT: You may.

MR. ROGERS: Is it up on the screen?

THE COURT: You may.

This is 4873?

MR. ROGERS: Yes, sir.

THE COURT: All right.

BY MR. ROGERS:

Q. And, Doctor, do you agree with me that this is an image that would not have existed in this format with the CT imaging at the hospital where it was taken?

A. I'm not sure of that. Actually, it was interesting. Her prior CT examination that she had that you were mentioning had a sagittal reconstruction, that -- I didn't have that when I originally prepared my report. But this particular set of imaging did not. It had a coronal reconstruction that was done at the hospital but not the sagittal. I'm not sure why they didn't send those images. Usually they do.

Q. And is this something that you would call a fixed slab CT scan?

A. Yeah. This is a -- this is a MIP reconstruction, a multi -- it's a -- sorry. Yes. It's a thicker slab, yes.

Q. And so in order to prepare this for the jury to see, did you have to do some manipulation of the imaging?

A. Well, what the computer does is it reconstructs the images based on -- it takes the axial cuts, stacks them all together, and then recomputes it into a view like this where you're looking at it from the side.

And what you can do, then, is actually make the -- they're called voxels. Make the voxels thicker and thicker to give you a little bit more definition and a little more -- a thicker -- basically a thicker slice. Kind of putting slices together.

Q. And you would agree with me that the doctor who reviewed this CT scan in the hospital did not look at an image that looked like this; correct?

A. I'm not sure. Like I said, it would be very unusual to just do the coronal reconstruction at the hospital and not do the sagittal when it was their -- basically their protocol to do all those images on the prior studies that we have.
Q. But in order to present this to the jury today, you did do something with this -- with a computer; is that correct?
A. I did, yes.
Q. Okay. Thank you.
Doctor, let's shift our attention back to 2011.
MR. ROGERS: And can we pull up Exhibit 8710?
And I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8710 admitted into evidence.)
MR. ROGERS: May we display?
THE COURT: You may.
BY MR. ROGERS:
Q. And, Doctor, would you agree with me that this is a report from a CT scan of Mrs. Hyde's abdomen and pelvis from December the 16th, 2011?
A. Yes.
Q. And would you agree with me that the doctor that read this noted that Mrs. Hyde had a hiatal hernia; is that right?
A. Yeah.
Q. And he also noted that IVC filter or vena cava filter is

identified; is that right?
A. That's correct.
Q. All right. Next page, please.
And under the Impression section, in addition to the hiatal hernia, it also notes diverticulitis; is that correct?
A. No. That's diverticulosis, which is actually uninfected diverticular disease.
Q. Okay. And it -- all right. Thank you.
A. It can be asymptomatic.
Q. And the next thing, it notes again a 9-millimeter kidney stone; is that correct?
A. Yeah, that's correct.
Q. And would you agree with me that kidney stones, again, and hiatal hernias can be sources of pain; is that correct?
A. Yes, they can.
Q. And, Doctor, would you agree with me that the radiologist that read this CT scan did not note anything about any complications such as tilt, migration, perforation with this filter?
A. They did not.
Q. Now, Doctor, you showed the jury how the -- you believe that the strut was interacting with her spine; is that correct?
A. Yes.
Q. And am I correct, Doctor, that you have no idea whether Mrs. Hyde was experiencing any back pain due to her filter?

A. You'd have no idea. Right.
Q. I'm sorry. Say again?
A. I have no idea whether she was experiencing back pain related to her filter or not.
Q. Okay. Thank you.
And would you agree that if a patient has degenerative disk disease, that it's not possible for you to sort out whether pain would be caused to that versus a filter; is that correct?
A. If she had degenerative disk disease, yes, that would be the case.
MR. ROGERS: Can we go now to June 14, '13, please? And pull up Exhibit 8521.
And, Your Honor, I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: 8521 is admitted.
(Exhibit No. 8521 admitted into evidence.)
MR. ROGERS: May we display this?
THE COURT: You may.
BY MR. ROGERS:
Q. Doctor, would you agree that this is a report from a CT scan from June of 2013?
A. That's correct.
Q. And is this the CT scan where you showed the jury the 3D image?

A. Yes.
Q. And did you review this report when you were preparing your case?
A. Yes.
Q. And would you note down there in number 7, it says there is a caval filter; is that correct?
A. That's correct.
Q. And would you agree with me that the radiologist that read this report did not note anything about any complications with this filter?
A. One of the reasons -- this is the second time you brought this up, so I'm going to address it.

One of the reasons that radiologists were not describing much about caval filters on CT scans is most general radiologists at that time had never seen a filter have a significant complication.

The perforations of permanent filters rarely caused problems, and the fractures in permanent filters rarely caused problems because they didn't migrate. So most general radiologists, when they'd read a CT scan in the past, would have just commented on the filter being present. They wouldn't have given a complete description of it because they were unaware of significant complications that really could occur with filters until they started occurring, and now they know more about them.

Q. And, Doctor, are you familiar with a safety communication the FDA issued in August of 2010?
A. Yes.
Q. And that's something that you've been aware of for quite some time; is that correct?
A. That's correct.
MR. ROGERS: And can we pull up Exhibit -- shoot. I don't have it with me. That's okay.
BY MR. ROGERS:
Q. But you would agree with me that the safety communication from FDA '10 was directed toward the community of doctors that deal with IVC filters; is that correct?
A. It was -- it was pretty much directed at interventional radiologists, yes.
Q. And you would agree with me that that safety communication identified issues with retrievable filters such as fracture, tilt, and migration?
A. It did.
Q. And you would agree with me that by 2011, this communication from the FDA was widely known among the community of doctors; is that correct?
A. I don't know if I -- no. I don't think that's true. I mean, FDA communications, they're not sent directly to physicians. You would have to actually look for it or be aware of it.

Q. But that was something that's available to the medical community from the FDA; is that right?
A. It was available from the FDA.
Q. And you were aware of that; right?
A. We were, yes. As a person who places filters, yes.
Q. And that would have been published a few months before this event; is that correct?
A. That's correct.
Q. So heading back to our exhibit, 8521, can we go to the next page, please.

And, Doctor, as far as this particular finding in 2013, would you agree with me that the reading radiologist said that findings are compatible with uncomplicated diverticulitis; is that correct?
A. Yes.
Q. And, Doctor, would you agree with me that shortly after this study was performed, that Mrs. Hyde had a colonoscopy? Do you recall that?
A. Yes, she did. Yeah.
Q. And do you recall that the treating doctor who performed the colonoscopy also diagnosed her with diverticulitis?
A. Yeah. It's pretty obvious on her CT scan.
Q. And would you agree with me that she was prescribed antibiotics and told to change her diet due to diverticulitis?
A. Correct.

Q. And that would be different than what you were pointing out earlier where you said it wasn't an active infection or something?
A. She eventually developed diverticulitis.
Q. And diverticulitis is a source of pain?
A. Usually not chronic, but yes. The acute episode is very painful.
MR. ROGERS: Okay. Let's go to Exhibit 8523.
And, Your Honor, I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8523 admitted into evidence.)
MR. ROGERS: May we publish?
THE COURT: You may.
BY MR. ROGERS:
Q. And, Dr. Hyde, this is another report from a CT scan done of Mrs. Hyde's abdomen; is that right?
A. Dr. Hurst. Yes.
Q. And -- excuse me. I apologize.
A. That's okay. It's fine.
Q. And this was done in May of 2014; is that correct?
A. It was, yes.
Q. And this was the CT scan that the treating radiologist identified the metal fragment in Mrs. Hyde's heart; correct?
A. Yes. He identified the arm that had embolized to the

heart, yes.
Q. And in the Clinical History section, does it indicate that Mrs. Hyde was experiencing right lower quadrant pain; is that correct?
A. That's correct.
Q. And is that lower pain on the right side of the abdomen?
A. Right.
Q. And does it also indicate that she had hematuria?
A. It does.
Q. And what is that, please?
A. That's blood in your urine.
Q. And again, looking down at the Impressions section, and this is where the doctor identified the fractured portion in her heart; is that correct?
A. Yes.
Q. And, Doctor --
MR. ROGERS: Can you pull that down, please?
BY MR. ROGERS:
Q. And would you agree with me -- I'm looking for the part. Ah, yes. Up in the Findings section. Do you see that?
A. Yes.
Q. And do you agree that this doctor noted that there is an IVC filter in place?
A. Yeah. Yes.
Q. And this doctor also did not note any other complications

with this filter other than the fracture that had the fragment in the heart; is that correct?
A. Correct.
Q. And this would have been now at this point almost about four years since the FDA safety communication; correct?
A. Correct.
Q. And, Doctor, would you agree with me that Mrs. Hyde, after this was discovered, this fragment in her heart, that she went to see a cardiologist in Las Vegas named Dr. Shehane?
A. Yes, that's correct.
Q. And I believe she saw him on two occasions; is that right?
A. She did.
Q. And on at least one of those occasions, she complained of some chest pain; is that correct?
A. She did.
Q. And would you agree with me that at that point, that was the first time that she had complained of any chest pain that you're aware of; is that right?
A. Besides the chest pain that she presented with initially for her -- yeah. Yes. Since 2011 or something like that, right. Correct.
Q. But I'm talking about her presenting with symptoms of actual chest pain. Right?
A. It's the first time, yes.
Q. Okay. Thanks.

A. I would say, yeah.
Q. And, Doctor, would you agree with me that Mrs. Hyde did not complain of any symptoms of chest pain until after the strut had been identified in her heart; is that correct?
A. As far as we know, yes.
Q. And would you agree with me that it's difficult to say whether Mrs. Hyde began to experience any chest pain once she learned that the filter fragment was in place; is that right?
A. Yes.
Q. All right. Let's turn our attention to the retrieval of this filter.

You agree that Dr. Kuo at Stanford removed the filter; is that right?
A. Yes.
Q. And that happened in August of 2014; correct?
A. Yes.
Q. And, Doctor, at the time you did your report in this case that you wanted to be as complete and accurate as possible, am I correct that you had not reviewed any of the imaging of the retrieval of the filter?
A. I had the report, but no, I had not reviewed the imaging.
Q. Okay. So you didn't look at any imaging from the retrieval that would tell you what position the filter was in at that point in time; is that correct?
A. That's correct.

Q. And, Doctor, is it your understanding that Dr. Kuo was able to remove the filter and the strut from the heart using something called snares?
A. Yes.
Q. And is that the typical -- or one of the typical devices that are used to retrieve IVC filters?
A. Yes.
Q. And that's also typically used to retrieve a strut; correct?
A. Yes.
Q. And would you agree with me that Dr. Kuo did not have to use any sort of advanced techniques such as a use of forceps or a laser to remove the filter from Mrs. Hyde?
A. He didn't have to use those advanced techniques, but it's fairly advanced to be fishing around in the heart with a snare.
Q. And, Doctor, when you perform the retrieval of a filter, are there usually records that are kept that document exactly what is going on in the cath lab at that time?
A. Of course.
Q. I mean, it's like a minute-by-minute kind of document; right?
A. Yes. Yeah.
MR. ROGERS: Can we pull up Exhibit 8740, please? And, Your Honor, I move this into evidence.
MR. O'CONNOR: No objection.

THE COURT: Admitted.

(Exhibit No. 8740 admitted into evidence.)

MR. ROGERS: May we publish?

THE COURT: You may.

MR. ROGERS: And, Scott, if you could just blow up the -- well, first of all, how about go to the next page, please. Back it up. Let's see. Next page.

Yeah, that's what we want. Can you blow that up, please, the center part?

BY MR. ROGERS:

Q. And, Doctor, is this an example of the type of records that are kept in cath labs where you can see what's going on sort of minute by minute and second by second?

A. Yes.

Q. And would you agree with me that the -- this document indicates that the case to remove the filter and the strut started at -- looks like about 9:10 in the morning; is that right?

A. It did.

Q. And then if you go on down and look there on the right, do you see where it says "filter retrieved and sheathed"?

A. Yes.

Q. And the time for that was -- looks like almost about 9:29; is that correct?

A. Yes.

Q. And so you would agree with me, Doctor, that this filter was removed in about 18, 19 minutes?
A. Yeah.
Q. And then looking down below that, at 9:36, would you agree that the snare was open that would be used to retrieve the strut from the heart?
A. Yes.
Q. And does it appear that the strut was removed right at about 10:00 o'clock; is that right?
A. It does, yeah.
Q. So the portion of that procedure took about 24 minutes; is that correct?
A. Yeah. Dr. Kuo's pretty good.
Q. Now, Doctor, you've never attempted to remove a filter strut from a heart; is that correct?
A. I've been fortunate enough not to have one.
Q. And you've never cared for a patient who's had that issue; is that right?
A. I have not.
Q. And, Doctor, would you agree with me that Mrs. Hyde was discharged from Stanford the day following this procedure?
A. Yes.
Q. And as best as you know, she's never returned to see Dr. Kuo; is that correct?
A. She has not.

Q. And as I understand it, you have not reviewed any medical records that relate to Mrs. Hyde following the removal of the strut and the filter; is that correct?
A. I was not asked to do that in this case.
Q. And, Doctor, I want to talk to you a little bit about some of the potential filter complications that you discussed in your direct testimony.
And one of the things you talked about was tilt. Is that correct?
A. That's correct.
Q. And I believe you said that you noticed something was a slight tilt; is that right?
A. Minimal, yeah.
Q. And minimal would be what, if you had to put a degree on it?
A. Somewhere between 2 and 4 degrees. I mean, it's very minimal.
Q. 2 to 4 degrees; is that right?
A. Yeah, 2 to 4 degrees anterior tilt, yeah.
Q. And did you measure that?
A. Yes.
Q. And as I understand it, when you do this, you draw a line on an image where you can see the IVC filter -- or, excuse me, the wall of the IVC itself?
A. Parallel to the IVC filter.

Q. And then you draw a second --

THE COURT: Hold on. Hold on just a minute, Mr. Rogers.

JURY MEMBER: I'm sorry. Mine's dead. I'm sorry. Apologize.

THE COURT: How is that?

JURY MEMBER: Perfect. Thank you.

MR. ROGERS: Thank you.

THE WITNESS: I'm sorry, I said -- I meant to say parallel to the inferior vena cava and then in line with the filter.

BY MR. ROGERS:

Q. Right. And as I understand it, you draw one line that you think represents the wall of the vena cava; correct?

A. Yes.

Q. And then you draw another line that you think represents the midline of the filter?

A. That's correct, yes.

Q. Is that right?

A. Yeah, that's the best way to do it.

Q. And then you ask the computer to compare those lines; is that correct?

A. Well, the computer just measures the angle, yes. It's an angle.

Q. Okay. And that's how you come up with 2 percent or

4 percent or whatever?
A. Degrees, yes. 2 to 4 degrees.
Q. Correct?
A. Correct.
Q. And, Doctor, in your practice, when you have been treating patients that have IVC filters, have you ever noted in a report a degree of tilt that's less than, say, 15 degrees?
A. Have I ever reported it?
Q. Yes. Have you ever put it in a report from an image of an actual patient?
A. No, I haven't.
Q. And have you ever performed this technique where you compare these two lines when you are treating an actual patient?
A. If the degree of tilt is significant, yeah. So you kind of -- what you do is you end up eyeballing it. If you think, wow, that looks pretty significant, then you'll measure it.
Q. Okay. And if you had seen Mrs. Hyde's filter in the imaging as a treating physician, would you have thought it necessary to do this measurement that you did?
A. No.
Q. And, Doctor, do you think another way that is effective to measure tilt is to use an axial cut from a CT scan?
A. It's more difficult.
Q. But it's possible to measure tilt; correct?

A. I'm not sure how you would get the angle but you can kind of eyeball it and say, well, the -- obviously -- so when you're looking at the filter in cross-section, the image that shows where the tip of the filter is, if the tip of the filter is up against the inferior vena cava like the way I showed you before, you know, that is pretty obvious on a CT scan when it's sitting like that on the axial images. But that can be difficult to get an exact measurement of your tilt.

MR. ROGERS: Okay. Let's pull up Exhibit 8516, please.

And, Your Honor, I would move this into evidence.

MR. O'CONNOR: No objection.

THE COURT: Admitted.

(Exhibit No. 8516 admitted into evidence.)

MR. ROGERS: May we publish?

THE COURT: You may.

BY MR. ROGERS:

Q. And, Doctor, is this what we would call an axial cut from a CT scan?

A. Yes.

Q. And would you agree with me that this is an image from December the 16th, 2011; is that right?

A. It is.

Q. And I think you pointed this out in your direct examination, but that big bright thing that we can see, that's

the spinal column; correct?
A. In the back, yes.
Q. And then the little bright dot that we can see, would you agree that that's the tip of the IVC filter?
A. It certainly is, yes.
Q. And would you agree with me that the tip of that IVC filter is pretty much dead center in the vena cava?
A. Yes.
MR. ROGERS: Can we pull up Exhibit 8517, please.
And, Your Honor, I move this into evidence.
MR. O'CONNOR: No objection.
THE COURT: Admitted.
(Exhibit No. 8517 admitted into evidence.)
MR. ROGERS: And may we publish, please?
THE COURT: Yes.
BY MR. ROGERS:
Q. And, Doctor, would you agree that this is another axial CT cut from a CT from June the 14th, 2013?
A. Yes.
Q. And, again, we can see the little bright dot that's the tip of the IVC filter?
A. That's correct.
Q. And would you agree that that's also about dead center in the middle of the cava?
A. It's a little anterior, but yes, it's close.

MR. ROGERS: And can we pull up Exhibit 8518, please.

And, Doctor, this -- excuse me. Your Honor, may I move this into evidence? I mean, Your Honor. I apologize.

MR. O'CONNOR: I have no objection.

THE COURT: 8518 is admitted.

(Exhibit No. 8518 admitted into evidence.)

MR. ROGERS: Thank you. May we publish?

THE COURT: Sure.

BY MR. ROGERS:

Q. And, Dr. Hurst, is this another axial cut from a CT from Mrs. Hyde from May the 16th, 2014?

A. And this shows the device pretty well centered.

Q. Okay. Thank you.

MR. ROGERS: And can we pull up Exhibit 8 -- 8519, please. And can you draw that out a little bigger, if that's possible?

Well, before I do it, let me move it into evidence, Your Honor. They're actually all three already in evidence, but this is just a comparison film.

THE COURT: Mr. O'Connor, any objection?

MR. O'CONNOR: No objection.

MR. ROGERS: May we publish?

THE COURT: This is 8519?

MR. ROGERS: Yes, Your Honor.

THE COURT: All right. That's admitted.

(Exhibit No. 8519 admitted into evidence.)

THE COURT: You may publish.

BY MR. ROGERS:

Q. And, Dr. Hurst, is this a -- does this show the three images we've looked at separately all together?

A. Yes, it does.

Q. And the first one we started off in 2011; right?

A. Yes.

Q. And the next one was May of 2014, which is some almost three years later or so; right?

A. Correct.

Q. And would you agree with me that this filter, based on these images, has stayed centered within the cava throughout the course of this time?

A. No. I think it's leaning a little bit anteriorly, but that's it.

Q. Okay. And you think that's that 2 to 4 degrees you talked about?

A. Yes. Yeah, absolutely.

MR. ROGERS: And can we pull up Exhibit 8520, please.

Your Honor, I move this into evidence.

MR. O'CONNOR: No objection.

THE COURT: Admitted.

(Exhibit No. 8520 admitted into evidence.)

MR. ROGERS: May we publish?

THE COURT: Yes.

BY MR. ROGERS:

Q. Now, Dr. Hurst, this is a different view from a CT scan from the CT from May of 2014; is that correct?

A. Correct.

Q. And this is slicing the body in the coronal fashion; right?

A. Correct.

Q. And so if you look at this filter here, does it appear to be centered in the cava to you?

A. In this orientation, absolutely, yeah. It's very close.

Q. And, Doctor, going back to your method of measuring tilt, when you draw the two lines, would you agree to me -- with me that if three different radiologists did that, they may get three different results?

A. There might be some observer variability, yes.

Q. And so is the measurement only as good as the lines that are drawn on the image?

A. When you're trying to measure small differences in degrees, yes. Obviously, if it's 90 degrees to the cava or 30 degrees or 20 degrees, it's pretty easy to get that measurement. But these small measurements like you're talking here, yeah, you probably would get two or three different measurements.

MR. ROGERS: Your Honor, I was getting ready to shift, but is it noon for the break or --

THE COURT: It is.

Ladies and gentlemen, we will break for an hour. We'll plan to resume at 1:00 o'clock. Please remember not to discuss the case, and we will see you then.

(Jury not present.)

THE COURT: You can step down, Doctor.

Please be seated.

All right. Counsel, as of now, plaintiff has used 2 hours and 23 minutes, and defendants have used 2 hours and 32 minutes.

And we will see you at 1:00 o'clock.

MR. ROGERS: Thank you, Your Honor.

(Proceedings recessed at 12:00 p.m.)

C E R T I F I C A T E

I, JENNIFER A. PANCRATZ, do hereby certify that I am duly appointed and qualified to act as Official Court Reporter for the United States District Court for the District of Arizona.

I FURTHER CERTIFY that the foregoing pages constitute a full, true, and accurate transcript of all of that portion of the proceedings contained herein, had in the above-entitled cause on the date specified therein, and that said transcript was prepared under my direction and control.

DATED at Phoenix, Arizona, this 20th day of September, 2018.

s/Jennifer A. Pancratz
Jennifer A. Pancratz, RMR, CRR, FCRR, CRC